

ARCHAEOLOGY



Autumn 1950

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Survival of the Fittest

No previous experience of the human society had prepared it for the forces released by World War II. If not always new in kind, like the fission bomb, they were unprecedented in scale: The war of movement and space, racing and plunging over vast areas; the war of power, with its repandent confidence in high explosives; the war of participation, the total war of the theoreticians, in which all sections of the populations were so thoroughly implicated that the perils of defense workers at the farthest rear often matched those of front-line troops. And these forces were set free among the densest concentrations of the World's culture achievement.

The rules of land warfare are well published and are presumed to be part of the professional equipment of every officer of combat troops. They require, among other things, measures to spare, "as far as possible, buildings dedicated to religion, art, science, or charitable purposes, historic monuments, hospitals, and places where the sick and wounded are collected, provided that they are not being used at the time for military purposes," and they prohibit pillage and the destruction or seizure of private property "unless such destruction or seizure be imperatively demanded by the necessities of war." The men who framed these articles were familiar with war. They knew that the enactment of provisions which no field commander could respect would bring contempt upon the whole legislation; therefore, after defining humanitarian targets, they included the phrases reasonably prefaced by "as far as possible," "provided that," and "unless," thereby placing the onus of responsibility in the only place where it could possibly do any good—in the discretion of the commander in the field.

World War II introduced a new protagonist, Hitler's Germany, which proposed to subjugate the whole of Europe and to hold it in peonage limitlessly into the future, placing its arts and books and archives forever at the disposition of the Reich. Against this were arrayed the familiar Allies; but this time the Americans had a role much larger than in World War I, and they could and did compel consideration of their finest and most radical contribution to the philosophy of war: the war must be fought and won in the shortest time, with the greatest economy of the lives, first of friendly troops, and second of non-combatants, and with relative disregard of material or expense.

Upon my desk lies a book called *Survival*,* by JAMES J. RORIMER, dealing with his efforts as a Monuments and Fine Arts Officer in Normandy, in Paris, and with the victorious Seventh Army in Germany, to protect historical monuments from damage, to mitigate the consequences of unprevented damage, and to recover the proceeds of pillage whether by German troops or American. The remarks which follow are those of the editor and are not to be construed as in any way reflecting the official attitude of the ARCHAEOLOGICAL INSTITUTE OF AMERICA.

The American Commission for the Protection and Salvage of Artistic and Historic Monuments in War Areas ("Roberts Commission") was set up in 1943 as a result of representations made by WILLIAM BELL DINSMOOR, then president of the ARCHAEOLOGICAL INSTITUTE OF AMERICA, SUMNER MCKNIGHT CROSBY, then president of the College Art Association, FRANCIS HENRY TAYLOR, director of the Metropolitan Museum of Art, and DAVID E. FINLEY, director of the National Gallery of Art. The principal tasks of the Roberts Commission appear to have been to list for the War Department those monuments the destruction of or damage to which would cause the widest regrets, and, through a committee headed by Harvard's PAUL J. SACHS, to nominate personnel for selection by the War Department for assignment to MFA & A duties. One of those thus selected and assigned was Mr. RORIMER.

* *Survival, the Salvage and Protection of Art in War*, by JAMES T. RORIMER, in collaboration with GILBERT RABIN. xi, 291 pages, illustrated. Abelard Press, New York (1950) \$4.00. Mr. RORIMER is curator of Mediaeval Art at the Metropolitan Museum of Art and director of The Cloisters.

Landing in France shortly after D-Day, Mr. RORIMER found to his dismay that the allied commanders were busy getting on with the war and impatient of his requests for transportation, manpower, and material. "A monuments officer who objected to the use of a fine château as a military installation, or the use of rubble from a church as road fill, was anathema to men such as General Ewart Plank, Commander of the Advance Section, whose only interest was supplies." "With the dead to be buried," he says, "the communications systems to be repaired, and all the other 'firsts,' it required the enthusiasm and perseverance of a devout lover of the arts to accomplish anything beyond the posting of signs and the recording of damage."

In recounting the detective work by which the German thefts were reconstructed and some of the property was traced and recovered, Mr. RORIMER has written a useful footnote to the history of art collecting and suggested some precautionary procedures for the future. In citing the type of monument which might catch the eye of an artillery observer, a billeting officer, or a tank commander looking for a place to park, and the particular kinds of abuse to which such buildings had been subjected, first by German troops and then by our own, Mr. RORIMER has performed another useful service. From a study of his annotations, it would now be possible to draw up, for use in the field, a set of instructions in which the worst sorts of damage were anticipated and provided against; and it is to be hoped that the original directives on this subject have been revised and amplified in the light of contemporary attitudes.

But the court of last appeal should still be the commander on the spot. At Fontenay-sur-Mer, says Mr. RORIMER, "As I drove up, one of our bulldozers was just about to push in the last of the walls. The stone from this building afforded the most readily accessible source of fill for road construction at the neighboring air field. I stopped the driver of the bulldozer from pushing in the last wall, which was part of the chapel containing two handsome eighteenth-century statues, and a few fragments. I asked to see the officer in charge of the operation. As a staff officer I had no authority to give orders. My capacity was purely advisory. I told the lieutenant of the château's value as a historic monument, and suggested that private property had to be respected. My remarks didn't take effect, however, until I emphasized that I had photographed the part of the building still standing for an official report, and that if he pursued his destruction further I would do my utmost to see that he would be replying by endorsement all the days of his life. 'Okay,' he conceded grudgingly. 'But this a helluva way to fight a war.'"

It was indeed. The nature of their assignment led the MFA & A officers into some of the most ignominious positions ever faced by persons in trousers, let alone men in the uniform of soldiers. At the risk of classing myself among the disciples of Satan I take my stand alongside General Plank and the nameless lieutenant hurrying to maintain a place where fighter planes were fueled and armed.

Just as, in the stratification of the pictorial arts, a photograph of a work of art is an echo, a shadow, a reflection—use any metaphor you will—in any case, irrevocably the inferior of the work it represents, so, we submit, on the next rung of the ladder, an original work of art is bound to be inferior to humanity itself. Whether it represents one aspect of humanity or some common experience of mankind, in any context where the protection of a work of art endangers or delays the safety of human lives the human lives must come first. This, among Americans, is not open to debate.

And so I feel that even the moderate terms of the EISENHOWER directive, quoted by Mr. RORIMER, placed upon fighting men straining to bring the conflict to a close in the shortest time, with the smallest loss of life, a burden almost intolerable. Armed with (and deriving immunity from) a copy of this, an over-zealous aide could constitute an appalling distraction on the staff of any field command. The war cost about seven thousand lives a day. If the total effect of the Monuments and Fine Arts personnel in the European theater was to postpone by so much as one day the end of the carnage, they have on their hands the blood of thousands who might have been spared.

J.J.



IN THE ANCIENT WORLDS, FOREIGNERS WERE ADMITTEDLY FUNNY. Foreigners had queer noses, wore queer clothes, did queer things.

Their oddities appealed particularly to the coroplasts, the makers of figurines, who found the soft medium of clay delightfully sensitive to the eccentricities of the human physiognomy. Sitting within the shelter of their shops, these coroplasts could observe the foreigners who passed in the market-place. Then, with sure fingers they would work up a comment on the incongruities of this or that type, thus leaving us a fascinating record of the travellers of the ancient worlds.

The Royal Ontario Museum, in Toronto, is especially rich in these figures of foreigners, both from the Far and the Near East. In the large gallery of T'ang figurines stands one whole case of foreign types, the humorous comments on outsiders that were made by those skilled

Fig. 1. T'ang figurines. On the left, a dancer, wearing rich jewelry, twists his body in an

appealing dance. At the right, a Jewish merchant appears to resist the dancer's entreaty with a tight fist. (Courtesy Royal Ontario Museum, Toronto, Canada.)

FIGURES IN FUN

Text by Dorothy Burr Thompson

Photographs by G. M. MacDonald



Fig. 2. Graeco-Egyptian figurines from the Fayum. Comic heads, drawn chiefly from native types, survey a little actor from the burlesque stage. (Courtesy Royal Ontario Museum.)

artists in clay whose superb horses and fierce demons, hunting nobles and patient bullocks we all know and admire. Many and varied were the visitors to the courts and markets of the great T'ang emperors in China from the seventh to the tenth centuries after Christ. People from the Syrian coast, from central and western Asia, from the lands south of China, come to life in this meeting-place of oriental nations. We see a lithe, curly-haired dancer, probably from the Kondore Islands near Siam (FIGURE 1). Slyly he is

making up to a Jewish merchant—to borrow money, perhaps, or to wheedle an engagement for his troupe in the fabulous cities of western Asia?

In other galleries of the Royal Ontario Museum, we see the foreigners of the eastern Mediterranean during the prosperous days of the Roman Empire, when caravans moved all over the ancient east. Coroplasts of the bazaars of Alexandria and Smyrna, harsher than the Chinese artists, made their salty comments on all manner of queer folk. They mocked the thin lips, the toothless gums, and the absurd noses of the Egyptian *jellabin* or natives. These they portrayed vividly (FIGURE 2) with shaven heads, sometimes wreathed from a drinking-bout. They show us the negro, ever jovial, grinning at a joke whispered to him by a wry-mouthed rascal from Carthage (FIGURE 3). Here too is that favorite underworld character, the buffoon actor, swaggering on bandy legs as the crowd jeers.



Fig. 3. Caricatures from the Roman Empire. At the left, a Carthaginian and a negro; at the right, two Roman types from the Fayum; at the back, the weary glance of an overseeing official. (Courtesy Royal Ontario Museum.)

But sometimes the Greek coroplast glances at the upper classes. He marks the supercilious, baggy-eyed Roman administrator, who lifts his chin at our gaze. Even more arrogant is the old native dame, who has her hair crimped in the style of the Roman court ladies, and who vies with them in wearing a showy earring (FIGURE 2). But her mouth sags from too much drinking.

Whether the court smiles or the gutter laughs, the spirit is not brutal. No pronouncements here on the equality of man, but his humanity is genially and honestly admitted.



"... the dancing floor which once, in broad Knossos, Daedalus made for Ariadne of the lovely hair." View from the Palace of Minos looking south. (Alison Frantz photo, courtesy Agora Excavations)

SIR ARTHUR EVANS AND KNOSSOS

By Joan Evans

Sister of the late Sir Arthur Evans, author of "Time and Chance" and a number of books on medieval English and French art; President of Britain's Royal Archaeological Institute and Vice-President of the Society of Antiquaries; Honorary Fellow of St. Hugh's College, Oxford.

A PASSION FOR THE PAST IS APT TO RUN IN the blood. ARTHUR EVANS was born of a stock in which it had already proved a dominant trait; his Evans ancestors had been clergymen of the Welsh border who had shared in the antiquarian revival of the eighteenth century; his father, JOHN EVANS, a paper-maker by trade, had, by the time ARTHUR was ten, achieved a reputation both as a numismatist who had recognized the Greek origin of early British coin-types and as an archaeologist who had recognized the authenticity of BOUCHER DE PERTH'S discovery of palaeoliths in the drifts of the Somme Valley.

ARTHUR EVANS was born in July, 1851, in the

house adjoining his father's paper mill, where he passed his youth among collections of coins, flint implements, and every kind of antiquity. He refused to enter the family business; he went from Harrow to Oxford to read history, in which he achieved a rather precarious first-class Honors degree, and in 1874 emerged as a graduate without a profession or any strong leanings towards one.

He had already traveled fairly widely in Europe and had had his first taste of adventure in 1871, when he visited Paris while the ruins of the Tuileries were still smoking. Later in the same year he traveled with two friends in the wilder parts of Austria, finally wandering on from Agram until they reached the half-

Turkish town of Costainica. The village, with its brightly painted houses, shingled roofs, and picturesque inhabitants, opened a new world to ARTHUR EVANS. He gazed entranced at the whole kaleidoscope of an Oriental civilization; and returned home completely in love with it. Thereafter he set the Balkans before any part of the world in his affections.

In 1875, with his graduation safely behind him, he visited the Balkans again. This time he passed into Turkish territory and explored Bosnia and Herzegovina. The journey ended on the seacoast at Ragusa, and to that city ARTHUR EVANS irrevocably lost his heart.

IN 1877 HE WAS ESTABLISHED as a roving correspondent in the Balkans for the north of England newspaper, the *Manchester Guardian*, with headquarters in his dream city of Ragusa. His chief occupation was relief work among the refugees from the Bosnian provinces that were in revolt against their Turkish masters, but such work inevitably brought him into touch with the underground politics and politicians of the Balkans. As inevitable, his lively, pugnacious and sometimes romantic letters to the *Manchester Guardian* established him as an authority on the Balkan situation, and as a promising recruit to letters.

On the strength of this journalistic success he married a daughter of E. A. FREEMAN, the historian of the Norman Conquest, bought a house in Ragusa, and settled there in 1878. But the cauldron of Balkan politics was still boiling, and ARTHUR'S sympathies were increasingly with Slav nationalism. He was soon hating the Austrians, who now ruled

Ragusa, as much as he had once hated the Turks. He had exciting contacts with the local underground movements; expressed his own views more and more freely in his despatches to Britain; and was astonished and angered when his too-lively interest in the Crivoscian insurrection of 1881 led to his arrest by the Austrians on a charge of high treason. After six weeks in prison (which confirmed ARTHUR EVANS for life in his sympathy with the under dog) he was banished from Austrian territory and thus barred from Dalmatia.

After a brief interlude at Oxford, he visited Greece and found at Delphi and Stiris the familiar enchantments of mountains and flowers, ancient tradition and eternal beauty. At Athens the EVANSES encountered SCHLIEMANN (whom ARTHUR EVANS had already met in his father's house) and studied his recent finds from Mycenae and Orchomenos. They traveled to Tiryns and Mycenae, and ARTHUR EVANS found in

their ruins the strange romantic thrill that "Classical" remains could rarely give him. There was in their Cyclopean masonry, in their architecture of wooden columns tapering toward the base, an inexplicable element that no easy hypothesis of Egyptian and Assyrian elements could account for.

ARTHUR EVANS, however, did not pursue the subject further, but went on to Mount Athos and Salonica, dividing his time between Roman remains, medieval antiquities, and modern politics. When he returned to Oxford at the end of September, 1883, it was to fresh hopes of finding an appointment there. The Ashmolean Museum, still housed in its original building next to the Sheldonian Theatre, was in itself a most curious specimen of antiquity. It housed collections of "cu-



The late Sir Arthur Evans examining one of his discoveries during his excavations early in this century at Knossos, Crete. (British Information Service)



Engraved bronze dagger from Knossos in Crete. This side depicts a fight between bulls.

riosity" that had remained in a state of suspended animation for nearly two centuries. There was a plan afoot to move the collections to new buildings attached to the University Galleries, to add to the collections other University possessions of cognate interest. In June, 1884, ARTHUR EVANS was duly elected Keeper of the Ashmolean and began the congenial task of recreating and reorganizing the Museum.

Fortunately the Keeper was able to spend nearly half his time abroad, if he wished, for EVANS was beginning to be haunted by the vision of Crete. He saw SCHLIEMANN's discoveries in Greece not as Homeric illustrations, but as evidence of a Bronze Age civilization. SCHLIEMANN's easy literary explanations could not satisfy him, and by 1894 ARTHUR EVANS, who had been working on Mycenaean gems and seals with minute symbols that seemed to him to be pictographic, had come to think that Crete, the natural stepping-stone between Egypt and Europe, might have been a stage in their development and diffusion and have played an unsuspected part in the history of early scripts. Even in 1887 he had considered the possibility that some of the Egyptian reliefs depicting the invaders of the Nile Valley might include Aegean peoples among those represented. His friendship with HALBHERR, dating from 1892, had increased his interest in the island, though at the time HALBHERR's own work lay among early Greek inscriptions.

IN THE SPRING OF 1894 EVANS, spurred by the knowledge that the Frenchman JOUBAIN and the American, STILLMAN, were showing signs of interest in the site of Knossos, departed to Crete with the firm intention of excavating the site himself. He found it

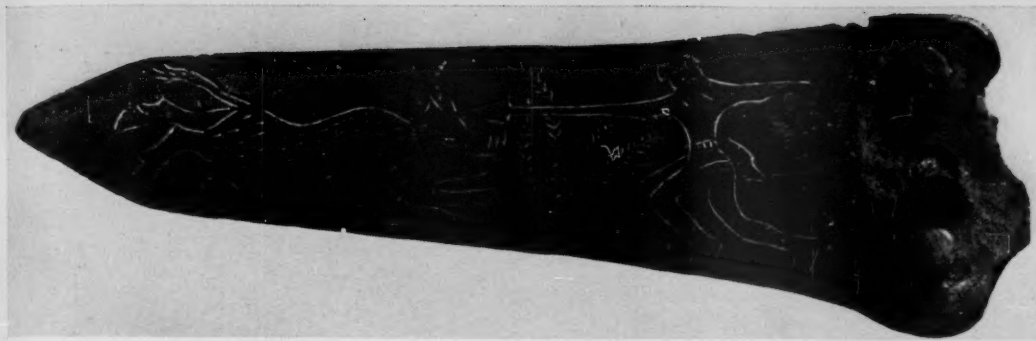
far more extensive than he had expected, far more interesting and far more beautiful. Once again he was able to recognize a place with which he had an innate affinity. The complications of a joint family possession under Turkish law delayed the possibility of beginning excavation for a long time, but he spent the spring and early summer in exploring a good deal of the island and in acquiring an unexpectedly large collection of pre-Hellenic engraved gems, some of the inscriptions being in the pictographic and hieroglyphic scripts which he had earlier recognized. In April, 1895, he returned and continued his negotiations for the acquisition of the site, but the Cretan insurrection against Turkish domination made it impossible to bring them to a successful close. Not until 1899 did he succeed in buying the freehold of the land.

His long researches in the island had by now led him far beyond his original view of Crete as an interesting but integral part of the Mycenaean civilization

that SCHLIEMANN had discovered on the mainland. He had come to see it as a place with its own civilization, to which he had already given the name Minoan, a civilization in which he was tempted to see the origin of the Homeric world of the Peloponnese.



Cretan script and a portrait head in a Middle Minoan seal from Knossos. From Evans, *The Palace of Minos*, Volume 1, fig. 206.



On this side of the dagger: a boar hunt. Both views from *The Palace of Minos*, Volume 1, fig. 541.

D. G. HOGARTH accompanied him for the first season's dig, with DUNCAN MACKENZIE, who had already excavated for four years at Phylakopi in Melos, as assistant. EVANS and MACKENZIE started on the southwest slope of the site, with some thirty workers.

From the beginning their excavation was fortunate. EVANS' curious intuition of antiquity had led him, though his experience of excavation was slight, to dig at a place which at once yielded material of the first importance; and the same intuition made it possible for him to recognize from the outset the significance of what he found. After forty years of subsequent research, it is astounding to go through his notebooks and to see how quickly he recognized things for what they were.

As early as the second day, they came upon the remains of an ancient house, with fragments of frescoes. EVANS recognized it as being earlier than the Mycenaean buildings on the mainland and compared its relics with those from the Kamares Cave, the only pre-Mycenaean site on the island that had so far been excavated. The walls showed that the Palace—for Palace EVANS was sure it was—had ended in a final catastrophe by fire. On the fourth day they found "a kind of baked clay bar, rather like a stone chisel in shape, though broken at one end, with script on it and what appear to be numerals." EVANS

had been justified; this inscribed tablet was exactly what he had come to find. He engaged more men to work on the site, fresh discoveries came to light on every hand, and each fragment seemed to join the last to form a picture of an unknown civilization. The entries in his journal retain something of the original excitement.

Ap. 5. A great day! Early in the morning the gradual surface uncovering of the Corridor . . . revealed two large pieces of Mycenaean fresco. . . . The figure was lifesize, the flesh color of a deep reddish hue like that of figures on Etruscan tombs and the Keftiu of Egyptian paintings. The profile of the face was of a noble type: full lips, the lower showing a slight peculiarity of curve below. The eye was dark and slightly



Knossos as it is today. The Hall of the Double Axes, photographed by Alison Frantz and reproduced by courtesy of the Agora Excavations.



The southern part of the Palace of Minos today, with the Queen's megaron at center on lower level. Alison Frantz photo, courtesy of the Agora Excavations.

almond-shaped. In front of the ear is a kind of ornament and a necklace and bracelet are visible. The arms are beautifully modeled. The waist is of the smallest. . . . It is far and away the most remarkable human figure of the Mycenaean Age that has yet come to light. . . . Ap. 10. Interesting discoveries in the N.E. chamber early this morning. The earth here is now passed through a sieve so that every bit goes through a double and even a triple examination and every scrap is noticed and set apart. One result was the discovery of what I had always hoped to find: the clay impression of a Mycenaean signet. . . ."

The work of HALBHERR and PERNIER at PHAISTOS and of Miss BOYD at Gournia, if less spectacular than his own at Knossos, nonetheless served to complement it. The summary report of the 1900 campaign, which appeared early in 1901, carried considerable weight and brought subscriptions to help him to carry on the work, though the main expenses were still met from his own funds. The 1901 campaign was largely devoted to more minute work on what had been already discovered, but further excavation on the east side

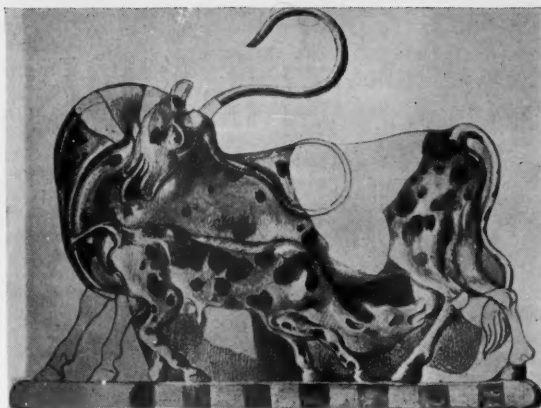
brought yet more sensational discoveries, both of objects and of architectural remains. These important architectural survivals led EVANS into the new venture of replacing the perished wooden elements and thus reconstructing the fragment of the vanished hall: a practice which at Knossos had the further justification of protecting from the weather the alabaster used by the Minoans for interiors.

EVANS returned to Britain in June, 1901, to receive the recognition he deserved; then went back early in 1902, feeling rather overwhelmed at the amount that still remained to be done. Though he stayed at Knossos until the beginning of June, discovery still followed discovery and he had the sense that the work had but begun. So overwhelming was the mass of material that he took with him to Britain to study that he did not return to Crete until March, 1904. Yet the shorter summer campaign was as fruitful as ever, and there was no sign of coming to an end of the site. He decided to build a house for himself and his staff near the excavation. This, the Villa Ariadne, was ready for him in 1907 and made possible the more detailed work which the vast riches of the site necessitated.

* JOAN EVANS, *Time and Chance*, 1943, page 331.

IN 1908, after his father's death, EVANS resigned the Keepership of the Ashmolean and made Knossos his main work. He planned a great book on the Palace of Minos, a book which occupied him until 1935. It was less shapely than he meant it to be, for, since excavation continued on the site while it was being written, the fresh discoveries that were made had to be inserted, not always in the place where they logically belonged; yet it remains EVANS' best memorial. He based it on the classification into three periods at which he had arrived very early in his work at Knossos: Early, Middle and Late Minoan, each in turn divided into three. The first volume appeared in 1921, taking the story down to the Third Middle Minoan period, in a scheme as elastic, and at times as epic, as that of a saga.

It is a book so personal that it is easily criticized; the student in a hurry may well find it hard to use. Yet anyone interested in discovering the kind of man that ARTHUR EVANS was will find him there: impetuous in enthusiasm, infinitely patient in detail, learned and ingenious, working more steadily than is apparent at first glance to turn six acres of historic ground and the stones and potsherds, the fragments of clay and metal that he found upon it, into a reasoned whole. It shows him always responsive to the object, always conscious of it as a part and symbol of the civilization

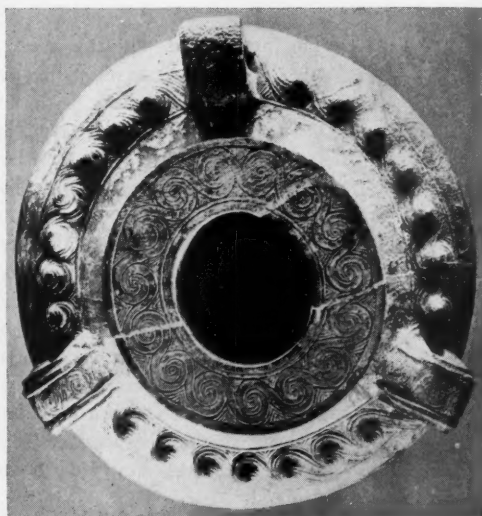


Faience plaque portraying a cow and her calf. From *The Palace of Minos*, Volume 1, fig. 367.

that produced it, always seeing that civilization as an integral part of history. It shows him, too, acutely aware of the stony mountains and bright flowers and stormy seas that had formed the setting for the Minoan world and that had endured unchanged after its destruction—and ever conscious of the beauty which that unknown and rediscovered Bronze Age kingdom must evoke.

Once the great book was finished, EVANS, now 84, became an old man, yet an old man who was still profoundly interested in archaeology and still capable of work on a smaller scale. He transferred the site and the Villa Ariadne to the British School of Archaeology in Athens, together with an endowment for its maintenance and for the salary of a curator. The transfer had not long been made when World War II came to isolate him from his beloved island.

ARTHUR EVANS died in 1941, three days after his ninetieth birthday. Crete was in German hands, the British Museum had been ravaged by enemy attack, all that he had loved and lived for seemed menaced by destruction. He was deeply moved by their danger and fully conscious of it, yet he died full of courage. He could not know that the German surrender of Crete would one day be signed at his own writing-table in his villa at Knossos; that the site of the Palace would emerge unscathed from World War II; and that the learning and values that he lived for would continue to be a part of the civilization that his countrymen hold dear.



Alabaster amphora, from the sculptor's workshop at Knossos. From *The Palace of Minos*, Volume 4, fig. 875b.

THE FUNERAL TREE

A NEWLY-DISCOVERED BYZANTINE
INSCRIPTION FROM ISTANBUL

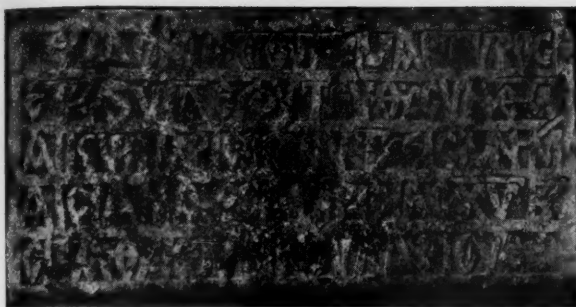
BY CYRIL A. MANGO



Istanbul: The Turkish cemetery which lies outside the ancient walls of the city.

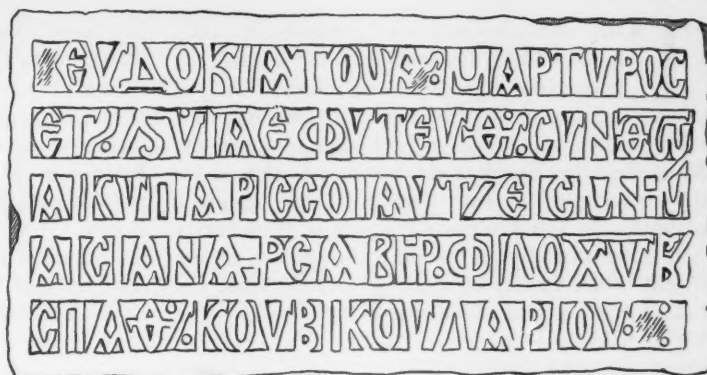


The practice of planting cypress trees in places of burial, to dispel the odour of mortality with the resinous fragrance, was taken by the Ottoman Turks from their Byzantine predecessors. It was believed until recently that if the cypress sprig took root and grew up into a tall tree, it meant that the soul of the deceased had received salvation; if, on the contrary, it took a downward bend, or failed—which was not uncommon on account of the closeness with which the trees were planted—the soul was destined to be damned.



Istanbul: The newly-discovered inscription which records the planting of cypress trees in memory of Arsavir, captain of the imperial bodyguard and diplomat in the ninth century A.D. It must have stood in the grounds of a nearby church, and illustrates the ancient origin of cypress groves in cemeteries.

The same inscription, reproduced in drawing for comparison with the photograph above and the text given below.



THE TEXT OF THE INSCRIPTION IS QUITE COMPLETE AND READS:

Βόδοκ(α) τοῦ ἀγ(ίου) μάρτυρος
 ἔτ(ους) , ς υ ι α ' ἐφυτεῖθ(ησαν) σὺν θ(ε)ῷ
 αἱ κυπάρισσοι αὐτ(αί) εἰς μνήμ(ην)
 αἰσ(αν) ' Ἀρσαβήρ φιλοχ(ρίστο)υ β(ασιλικοῦ)
 σπαθ(αρίου) κουβικουλαρίου.

"With the good will of the holy Martyr
 And the grace of God these cypress trees
 Were planted in the year 6411 to the fair

Memory of Arsavir, the pious imperial
 Spatharius and gentleman of the bedchamber."

The spatharius Arsavir, evidently an Armenian, is, I believe, the same person who in the summer of A.D. 860 was the imperial legate to Pope Nicholas I. His was a delicate mission: he was carrying letters justifying the deposition of the Patriarch Ignatius and the appointment of Photius in his stead, and was bringing splendid gifts to the Pope, a gold platter inlaid with precious stones, a gold chalice, a gold shield, and a gold-embroidered robe depicting trees, flowers, and sacred scenes. This was the prelude to the first schism between the churches.

The year 6411 corresponds to A.D. 903.

The author is indebted to BAY NEZIH FIRATLI of the Istanbul Archaeological Museum and to its Director BAY AZIZ OGAN for permission to publish for the first time the above inscription. It was found in the Sehzade quarter of Istanbul, and measures 79 x 36 x 10 cm. (Museum no. 4982, date of accession 1948). Thanks are also due to Dr. A. M. SCHNEIDER of Göttingen for a suggestion regarding the interpretation of the text. Dr. SCHNEIDER remembers having seen the inscription in 1943 in a private house.

EARLY TYPE-FACES

By John Petersen Elder

Dr. Elder was born at Auburn, New York, in 1913. He graduated from Williams (A.B., 1934) and Harvard (A.M., 1935; Ph.D., 1940). During the war he served in the army, ending as Assistant Military Attaché in London, then The Hague. In 1946 he returned to Harvard as assistant professor of Greek and Latin. He is on the editorial boards of Harvard Studies in Classical Philology and Speculum.

THE ARCHAEOLOGY OF TYPE-FACES, LIKE many another archaeology, is but a small, intermediary section of a large field of investigation—in this case, that of the art of writing. In a measure, then, if we follow the King's advice to the White Rabbit: "Begin at the beginning, and go on till you come to the end; then stop," the origin of movable type and the many changes in their forms right down to today are as much the concern of the student of the history of writing—and therefore the student, too, of general cultural history—as, say, the origin of early syllabaries and alphabets or the characteristics of this or that mediæval script.

Fortunately, it should cheerfully be added, a tolerably reliable account of early printing is not at all so difficult to construct.

JOHANN GUTENBERG of Mainz is tra-

ditionally accredited with the invention of movable metal types in Europe. I say "invention" and "in Europe," since there is no real evidence of Chinese influence upon occidental printing. GUTENBERG signed no work. It is far from certain that he fathered the earliest dated piece of printing in Germany, the Letters of Indulgence put out at Mainz in 1454. Neither can one be sure that his hand is behind the splendid 42-line Bible commonly called his and published not later than 15 August, 1456, although all in all it would seem likely that he was responsible for at least a good part of this early monument. Nor, to pursue this line of agnosticism for a moment more, have we any certainty that Germany produced the first printing

in Europe. Doubtless brave men lived before GUTENBERG and FUST and SCHOEFFER too, and these proto-typographers may not have been German. Indeed, the very perfection of the workmanship in such early German productions—see FIGURE 1, from the "Gutenberg Bible"—bespeaks in a Homeric fashion crude and primitive predecessors in typography. But be that as it may, GUTENBERG may well have been at least the first to make metal moulds and matrices by which a large number of types could be cast with accuracy.

Whoever merits the palm, the discovery or invention was made practicable in Germany around the middle of the fifteenth century, and soon spread rapidly into neighboring countries. Possibly the devastating sack of Mainz in 1462 facilitated the scattering of printers. Yet it must be said that an eager market was awaiting

them, particularly amongst the clergy (and especially those who lived in outlying districts where libraries of manuscripts were meagre and scarce), and such other professional groups as lawyers, doctors, teachers, and students, as well as amongst those honorable ones who read for pure pleasure.

In Italy the first printed book, of which no copy remains today, came out in 1464 (a "Donatus," by SWEYNHEYM and PANNARTZ, at St. Benedict's venerable foundation at Subiaco); in Switzerland in 1468; in France in 1470; in 1473 in Belgium and Holland (if we waive the matter of mute, inglorious "pre-Gutenberg" craftsmen there); in Spain a year later; and in England in 1476. By the close of the century

**Quod cū audisset dauid: descendit in
presidiū. Philistiīm autem venientes
diffusi sunt in valle raphaīm. Et cō-
suluīt dauid dñm dicens. Si ascēda
ad philistiīm- et si dabis eos ī manu**

Fig. 1. 42-line Bible, Mainz, ca. 1456

printing had clearly won the day over writing by hand; in Venice, for example, in 1500 there were no less than two hundred sixty-eight printers! By the close of the next century, specialists had already begun learnedly to theorize on what an earlier age might have called the *ars typographica*.

FIRST AND LAST, THESE TWO POINTS must be emphasized: that the earliest fonts were based as closely as was mechanically possible on the forms employed in handwriting and, second, that the sort of type used depended on the contents of the book, i.e.

type-cutter if early printers had sat down to consider just how their art differed from that of the scribe.

On the other hand, if more like the great JENSON (see FIGURE 2) had reckoned with the nature of the printed page, where all faces of a given size, regardless of character, line with each other, they would more speedily have taken care of such matters as proper spacing between lines, the evils of shortened descenders, the architectonic problems raised by the average number of letters in a given language which extend above and below the line, and the like, and printing would sooner have perceived its own dignity.

hominem enim qui deum uideat Israel nomen significat. Ab hoc.xii.
iudæorum tribus pfectæ sūt. Innumerabilia de uita istorum uirorum
fortitudine prudentia pietateq; dici possunt: quorum alia secundum
scripturæ uerba historice considerantur: alia tropologice ac allegorice
interpretat̃: de qbus multi cōscripserūt: & nos in libro quē inscripsiūs

Fig. 2. Jenson's Roman type, Eusebius, Venice, 1470

one type was deemed appropriate for religious works, another for the Latin classics (and early Fathers of the Church), and still another for vernacular compositions.

To return to the first of these points, printing in its early period lacked the honor attached to handwriting. A noble lady of the last years of the fifteenth century would still have her devout Book of Hours written and illuminated by hand, and therefore for successful competition printers felt obliged in every way, whether in forms of letters or ligatures or abbreviations or idle flourishes, to imitate writing by hand. Indeed, it is questionable whether early printers even thought of themselves as pioneering a new art with its own aesthetics but only as developing a quick and cheap method of reproducing manuscripts.

This attitude had two important effects. The fonts of early printers varied according to the types of handwriting then in use in *their* countries (although we must remember that a printer in one land might import his type from another land). Thus they have bequeathed to us a medley of types, e.g. various forms of Roman and Gothic, and both upper and lower case. Second, most of these early printers blithely attempted to transfer to the machine what had belonged to the art of the hand, without overly much thought of the riches and limitations of the new medium. Flourishes, contractions, and sprightly cursive elements, for example, would not have been wished on the luckless

The upshot, then, is this: to understand the early fonts—variations of Gothic and Roman—one must be familiar with the then current practices in handwriting in each country where printing sprang up, as well as with the distinctive type felt suitable for works of various sorts of contents.

This leads us back a bit into the field of Latin palaeography.

The chief problem in writing which the early Middle Ages had persistently tackled was how to hammer out a clear, orderly *minuscule* (i.e. lower-case) book-hand, as opposed either to cursive scripts (which inevitably would lack clarity and regularity) or to the majuscule (i.e. upper-case) forms of the earlier imperial days (i.e., the stately capital or uncial or even semi-uncial scripts). This problem was acute in the Middle Ages for several reasons.

The main one was probably economic. The days of plentiful and cheap papyrus were long past. Men now wrote on animals' skins and, though prices appear to have varied considerably by localities, it was always a fairly costly proposition. Then too, the composition of capitals and uncials and semi-uncials would call for a high technical skill constantly and carefully fostered amid a not small number of scribes. Few mediaeval communities could maintain such traditions, and in many a monastery such writing was pretty much a lost art. In brief, mediaeval writing, the tool and memory of a complex culture, ideally should take up less space

than had the elegant book-hands of the Empire, should be less difficult morphologically to execute, and yet somehow should manage to possess the regularity, lucidity and neatness of the earlier forms.

Few struggles in man's cultural progress are so fascinating to observe—and so heartening—as the mediaeval attempts to found such a minuscule. The Irish, perhaps because even then they were less pros-

the Alps through most of the thirteenth century), but it was no universal possibility since it was difficult to write and read. And so on.

The answer finally came at the end of the eighth century in France—perhaps with a considerable debt to the early Irish missionaries—and in the form of the Caroline minuscule, based on both cursive and semi-uncial forms (see FIGURE 3). Whatever its exact or-



Fig. 3. Caroline minuscule, St. Augustine, 1029-1030 (Paris, B. N. 12219)

perous than their continental neighbors, and certainly owing to their position as transmitters of much of the knowledge and lore of antiquity, were the first to create such a script, and to exploit the possibilities of extensive abbreviations in a book-hand. But the Irish minuscule failed to "take" elsewhere, since it was not clear.

And soon after other countries produced national hands. In Spain there arose an orderly and dignified minuscule, but this was not the answer since at best it was hard to read. In North Italy many a center labored heroically; some like Verona repeatedly tried but never did succeed; others like Vercelli and Novara finally did forge a fairly decent minuscule script, but only so late that it was soon swamped by the French achievement of the Caroline minuscule. In South Italy Beneventan script, to be sure, had already attained a wonderfully dignified and stable form (and indeed stubbornly held its own against the script from beyond

igin, at least we can now safely call it a French creation, and not the work of a single scholar or emperor but a truly national achievement, worked out in various centers over several decades. Soon it had spread over most of western Europe. It was clear, orderly, well proportioned, and simple—precisely the sort of regular script which would appeal to an age which witnessed the standardization of the Benedictine Rule, the Vulgate, and the liturgy. From this script are ultimately derived all our lower-case forms.

Yet the creation of the Caroline minuscule, important as it was in the unification of mediaeval culture, was at the most a brave adaptation and remodeling of old (i.e. Roman) forms with the aid of the more plebeian cursive. Indeed, one may well ask whether this script, any more than the contemporary Romanesque efforts in architecture, really expressed with its classical roundness and symmetry the true spirit and temperament of the people over whom Charlemagne

century),
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and his successors ruled. It may actually be that Gothic script, with its *brisé*, angular, crowded, and compressed character, is the better reflection of the dynamic, possibly even romantic, nature of the men of the Northland. At all events, Gothic (which is neither a national German script nor has anything to do with the Goths, but was the name which Renaissance scholars scornfully applied to the earlier "barbarous" script) emerged out of Caroline from the close of the

thirteenth century Gothic was firmly enthroned in all of western Europe.

The rise of the universities with their demand for more copies, as well as the emergence of vernacular literatures, called for a script which could contain even more letters to the line than had the Caroline minuscule. True, Gothic lacked clearness, but with patience one can "get on to it," and as for beauty, few would deny it that. Finally, as was said before, like Gothic



Fig. 4. Early humanistic script, Sallust, 1380 (Ambrose. L, 68)

vent casus, et eo magnitudinis pce
deret ut p mortalibz gloria eter
ni fieret. Nam uti genus hoium
compositum ex corpore et aia est
ita res cuncte studiaz oia nra cor
poris alia. alia animi naturam
sequuntur. Igitur pclam facies. ma
gne diuitie. ad hoc uis corporis. et

eleventh century onward, and contained such genuinely new elements that perhaps it may fairly be called the great mediaeval accomplishment in writing.

Like all cultural changes, the shift from Caroline to Gothic was a gradual evolution, and, like most evolutions, from the simpler to the more complex. It varied in degree from country to country. The Italians, for example—and this is important in the history of printing—never indulged so fully in angularity and compression as did the Germans. The persistence of southern classicism was surely operative here. But everywhere to some measure the twelfth century became the transitional period. Bit by bit scribes increased their pace, and ceased carefully to complete a rounded, shaded letter in Carolingian style. Instead, they resorted to a number of short strokes, and angles replace circles. To save space, letters were shoved together, and for the same reason all sorts of often capricious abbreviations became respectable. By the

architecture with its hundreds of broken forms and outlying flourishes, it surely somehow expressed the temper of the times.

When printing came in, around the middle of the fifteenth century, some form of Gothic, then—whether pointed (as in the "Gutenberg Bible" of FIGURE 1) or round or cursive—was in vogue everywhere. And in most countries Roman was also being used, chiefly for copies of the Latin classics. For in Italy, in the antique cradle itself of Latin culture, toward the end of the fourteenth century a new, reformed script, based on Caroline models of the later period (tenth and eleventh centuries, and probably from such centers as Cluny, St. Gall, and Verona instead of St. Martin's), was being introduced by a few humanistic scholars.

The reasons for such a revival are not hard to determine. As the early students of the Renaissance unearthed lost classics in forgotten monastic libraries—and one must remember that they were mainly inter-

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ested in ancient texts and not in ancient scripts—they noted approvingly that the handwriting (later Caroline) was not only older than Gothic but clearer, and gradually there was born the conviction that the antique script befitted transcriptions of antique authors—Latin classics, early Fathers of the Church, and the poetical exercises of the humanists.

As yet we cannot say who first propounded this view—SALUTATI or NICCOLI or some other—but available evidence points toward NICCOLI as the hero, and between the years 1395 and 1400. But if NICCOLI virtually laid down the rules for the *littera antiqua*, it was POGGIO (1380-1459) whose calligraphic virtuosity probably was chiefly instrumental in spreading

1410, and rapidly spread with the newly-discovered classics to most other lands for the manuscripts ordered by Princes of Church, State, and Commerce. In the sixties it was employed by early printers in both Germany and Italy, reproducing the manuscripts, and in the years 1470-1520 in both manuscripts and printed books it reached its perfection.

IN GERMANY, WHERE WE MUST BEGIN our account of printing, at first there was a great variety of Gothic or black-letter types, which roughly fall into three classes: the formal, pointed type (a *lettre de forme* called *textura*) illustrated by the "Gutenberg Bible" (FIGURE 1; with this compare the handwriting

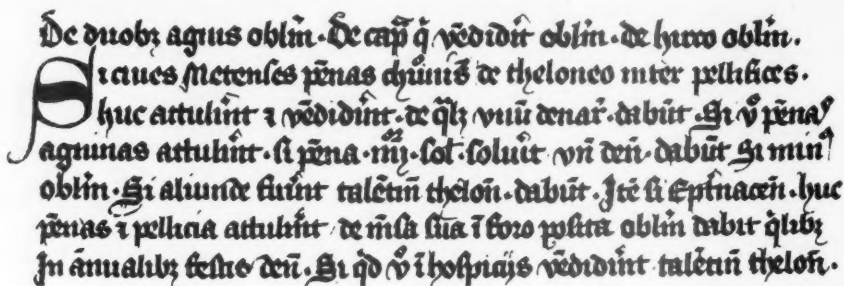


Fig. 5. Gothic script, 1339 (Treves, Dom-bibliothek 300)

the new style. At all events, to judge from the autographs of the members of this small humanistic circle, there is an impressive agreement in their alphabets, so that one may conjecture that someone (NICCOLI?) dictated a standard model. This was not at all a slavish imitation of later Carolingian (nor a sudden break with Gothic), but a gradual adaptation of the earlier minuscule for the text and of the majuscule for simple titles. Doubtless, then, this standard alphabet was a *cento* rather than a reproduction of the script of any one book or even center.

The outstanding features of this alphabet—one should consult FIGURE 4 and compare it with the Caroline of FIGURE 3—are long, perpendicular ascenders and descenders (which increased the amount of whiteness of the page), perpendicular-shanked d, serifs on tops of ascenders (but not on the descenders), a figure-eight g with the bottom loop closed, t with the cross-bar cutting through the shaft (and not on the top, as in Caroline), tall s and f with feet on line, open a, and generally much more ample spacing and fewer abbreviations than in Gothic. This revived script speedily gained popularity between 1400 and

of FIGURE 5); second, mostly under Italian influence, a less formal, rounded sort called *rotunda*; and third, a cursive *bastarda*, later developed into the *Schwabacher*, which was generally reserved for works in the vernacular. All three of these black-letter types parallel contemporary practice in handwriting. In addition, Roman type made an early appearance. Indeed, that put out at Strassburg by ADOLPH RUSCH may have appeared a few months earlier than the first Roman in Italy (at Subiaco, 1467, by SWEYNHEYM and PAN-NARTZ). And then Germany also had its types transitional between Gothic and Roman. Gradually these various forms sorted themselves out according to the contents of the book to be printed: the *textura* came to be felt appropriate for religious works, the *bastarda* as in England and France for vernacular works, and first the *rotunda* and later pure Roman for the classics.

The first printers in Italy, SWEYNHEYM and PAN-NARTZ (refugees from Mainz?) seem to have attempted in their initial work at Subiaco a more Roman type than the usual German Roman of handwriting, to suit the Italian taste. To us this type, reproduced in FIGURE 6, may appear Gothic beside later Roman

products, but for its time and beside contemporary handwriting, it must be called genuine Roman. When these two printers moved to Rome in 1467, they changed to a still more Roman type (which some

name of ALDUS MANUTIUS is the most famous, and not for his Roman types (of which he had five or six) but for his small, slanting font from which is derived with a good deal of simplification our modern Italic

de lūmo & conditore rerū deo huīusmōi uersus reperūtur. Αφθαρτος
κτίστης αιωνίως αιθερα μαιωμ τοις ακακοις ακακομ προ-
φερωμ πολυ μειζομα μισθομ τοις δε κακοις αδικοις τε
χολομ και θυμομ εγειρωμ. id est icorruptibilis et conditor eternus
in aere habitans. bonis bonū pferens. iustis multo maiorē mercedem. in-
iustis aut & malis iram et furorem excitans. Rursus alio loco enumerans.

Fig. 6. First type used in Italy: Sweynheym and Pannartz, Subiaco, 1465

scholars call the first Roman). So quickly did printing spread, and printing in Roman (by 1473 Venice could boast of ten printers using Roman), that it may fairly be said that the best Roman types in Italy all appear before the end of the century.

Of all who used Roman, perhaps NICOLAS JENSON is one of the most excellent. His fonts display such readability, such unerringly correct proportions, and such general mellowness that his types have always been taken as models and repeatedly imitated. For a specimen of JENSON's work, see FIGURE 2. The virtue of his font, and at once the quality which has

type, i.e. *italics*. To understand the origin of this font, one must recall that, whereas all other European countries save perhaps Spain had a cursive vernacular blackletter script and type, Italy in the fifteenth century had developed for its cursive handwriting not a Gothic or blackletter form but a "speed version" of its formal, humanistic script. (For such a "speed version" there had been no Carolingian model.)

But this humanistic cursive happened not to be translated into type-forms until the start of the sixteenth century, when ALDUS had the sharpness to see that small, compact editions, done in a humble but

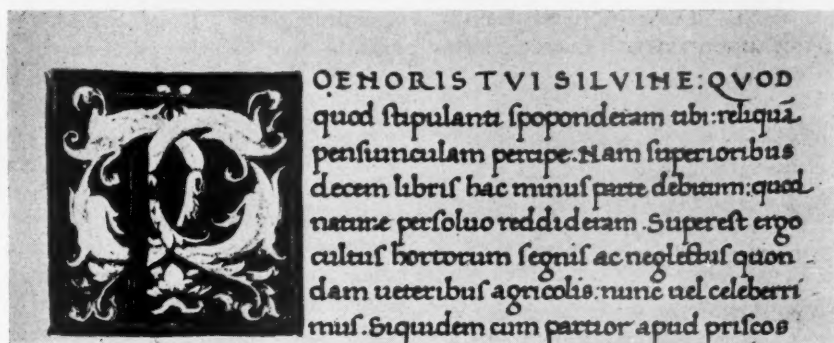


Fig. 7. Later humanistic script, Columella, 1488 (Nap. V, A5)

made imitation difficult, is the very unevenness of the letters which gives his pages "movement" and avoids monotony of perfection. Thus, as a glance at FIGURES 2 and 7 will show, JENSON succeeded in catching much of the individualistic spirit of contemporary handwriting.

But perhaps in the annals of Italian printing the

respectable style, a sort of Venetian "Everyman's Library," might be commercially successful. For thus he could save paper, and paper was as expensive as labor was cheap. So Aldus, possibly imitating the enormous number of ligatures, contractions, and complications of his cursive Greek types, and basing his forms on cursive scripts of the previous century (see FIGURE 8),

founded his famed, slanting font, an example of which is given in FIGURE 9. The chief characteristics of this strange style are the large number of "tied" letters (later reduced in number), and its Roman capitals

Finally, a word should be said on Italian black-letter fonts. Despite the popularity of humanistic forms, Gothic was employed too, and by as good a printer in Roman as JENSON. But Italian Gothic hand-

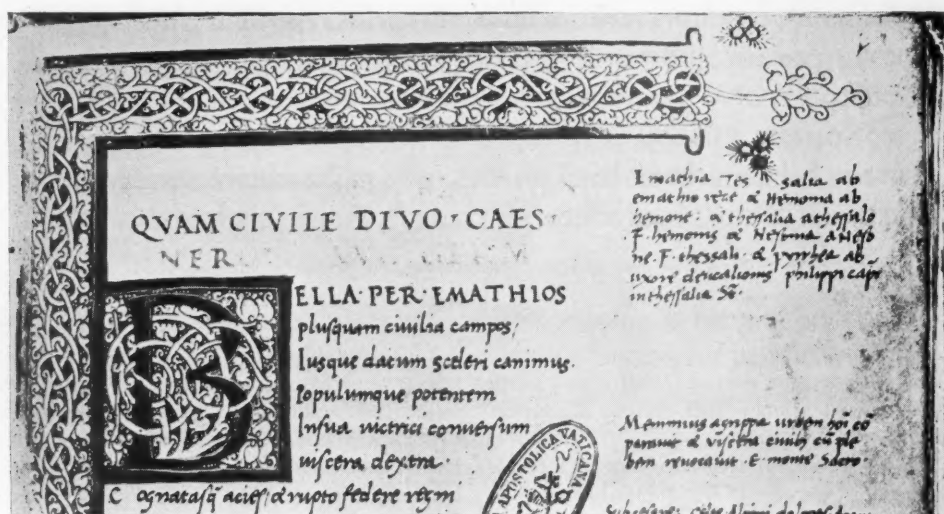


Fig. 8. Lucan, hand of Pomponius Laetus († 1497), Vat. Lat. 3285

which, at first perpendicular and not slanting, are shorter than the ascending lower-case letters. But to reproduce, in printing, a type of writing which indeed could be executed by the hand more rapidly than the more formal sorts, was hardly a virtue, since in his

writing had never been so extreme and complex as the northern varieties. This fact, along with the natural enthusiasm for Roman, may account for the steady "Romanization" of Italian black-letter. First, Roman capitals come in; then arise tentative, transitional fonts for the lower-case of the texts, and often it is hard to say whether we should call a work Roman-Gothic or Gothic-Roman.

At this point the matter of upper-case forms deserves some attention. Carolingian scribes had revelled in displaying all the standard varieties of majuscule scripts in their titles and headings—square and rustic capitals, uncials, and semi-uncials, in a hierarchy of descending importance. As Carolingian gradually passed into Gothic, these "display-headings" were simplified but never abandoned, and consequently the earliest printers of black-letter took up the practice of headings, first in Gothic (often twice as large as the letters of the text) and later often in Roman.

In Italy, the humanistic script revived the Carolingian practice of using capitals for headings, but generally these were of fairly rustic sort. Some early printers imitated these rustic capitals, but finding them difficult to execute and fancying them not the pure milk of classicism, they turned to the bold

IVNII IVVENALIS A QVINA TIS SATYRA PRIMA.

EMPER EGO AUDITOR

tantum? nunquā me reponam

V exatus toties rauci theside

Codri?

I mpunc ergo mihi recitauerit ille

tegetis?

H ic elegos? impune diem consumpsit ingens

T elephus? aut summi plena iam margine libri

Fig. 9. Aldine Italic, Juvenal and Persius, Venice, 1501

whimsey ALDUS involved the type-cutter in no end of unnecessary flourishes and joiners. Under French influence the Aldine font was simplified, and gradually italics have come to mean to us a simple, characterless "ideal hand."

square capitals which today form our upper-case type. The inspiration for these capitals was probably found in the contemporary inscriptions in stone, e.g. in such fine work as the lettering on the tomb of the great, humanistic pope, NICHOLAS V (†1455), shown in FIGURE 10. One recalls the lively interest of the humanists in epigraphy—even to the extent of forgeries—and the many private collections of antique inscriptions which they formed. So these fifteenth century inscriptions, in turn, owed their inspiration to the Imperial ones, such as on Trajan's column. Thus epigraphy, palaeography, and typography are all conjoined in a truly humanistic blend.

ments in fonts, we may perhaps set down at least three factors as dominantly operative: the increased "feel" which the best printers from age to age developed for their medium once printing had become emancipated from handwriting; the "economy drives" of printers which stiff competition almost from the start forced upon them, with the resultant cheapening (although France may point proudly to her great workmen of the mid-sixteenth century; and indeed most lands have from time to time produced printers who scorned such cheapening); and last, the inevitable relation of printing to the general tastes of an era which might dictate, whether in furniture or architecture or



Fig. 10. Humanistic square capitals, Tomb of Nicholas V († 1455), St. Peter's

To look back for a moment, every country in western Europe in the fifteenth century—and for brevity's sake nothing has been said about early printing in France, Spain, or England—had its formal, pointed black-letter; every one save England its Roman fonts; and every one except England (and possibly Spain) its cursive black-letter. All these depended upon the varieties of the handwriting of the country in which the type was cut.

If now we look ahead into the sixteenth and later centuries and consider the many changes and develop-

type, now a plain impress and now a fanciful one, and now a fragile effect and now a ponderous one. Space does not allow a discussion of such memorable presses as that of BODONI, ESTIENNE, PLANTIN, or BASKERVILLE, but at least two printers merit notice here: GARAMOND, in whose face is set this article and in fact almost every word of this volume of this journal, and CASLON, who served as the model for its first two volumes.

GARAMOND, the first and perhaps the finest of French letter-cutters, is often said to have devised his

types (c. 1540) on those of JENSON. This is basically untrue, since unlike JENSON he was not attempting to reproduce the forms of a humanistic manuscript but actually to create letters as independent types. A glance at FIGURE 11 of GARAMOND's work and then at FIGURE 2 of JENSON's will illustrate this, as well as the singular beauty and delicacy of GARAMOND's font. One should particularly notice the small loops of the e's, the narrow a's, and proportionately large capitals.

The work of CASLON (1692-1766), perhaps England's foremost cutter of Roman, is in striking con-

trast with that of GARAMOND. Instead of French elegance and fancy, one finds in CASLON's print a sturdy Anglo-Saxon quality and an element of imperfection which lends the mass a pleasantly reliable, comfortable effect. And yet it lacks any touch of grossness or stolidity.

To turn back now to the handwriting and printing of the fifteenth century, and then to advance to the products of such men as GARAMOND and CASLON, is to see, in quick parade, printing's coming-of-age.

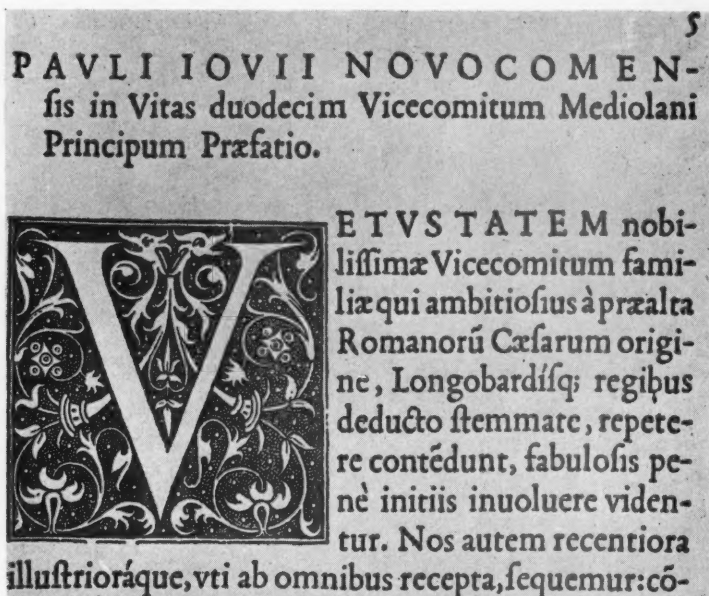


Fig. 11. Garamond's Roman type, 1549

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A number of the plates are reproduced from STEFFENS and UPDIKE.

—J. P. E.



1 2 3 4 5

Fig. 1. Athenian silver coins struck between 560 and 300 B.C.

THE "OWLS" OF ATHENS

By Margaret Thompson

*...these, our sterling pieces, all of pure Athenian mould,
All of perfect die and metal, all the fairest of the fair,
All of workmanship unequalled, proved and valued everywhere...*

(*The Frogs*, 721 ff.—B. B. ROGERS tr.)



WHEN ARISTOPHANES PAID THIS TRIBUTE to the currency of his native city, the silver "owls" were already 150 years old. For almost four more centuries Athenian tetradrachms would continue to circulate as one of the standard coinages of the Hellenic world, their popularity at home and abroad due to a carefully maintained consistency of types, weight and metal. No other Greek mint could point to so long and illustrious a record.

Credit for the creation of the owl coins belongs to Pisistratus, the tyrant statesman who in 561 B.C. put an end to the struggle for power within Athens by seizing the Acropolis and making himself master of the city. With characteristic vision, Pisistratus realized that the prosperity of Athens must depend on her trade and that foreign markets require a sound and attractive currency. Only a few years before, the city had instituted the great Panathenaic festival, honoring the patron goddess of Athens and attracting visitors from all over Greece. Here at hand were the perfect devices for a truly civic coinage of which every Athenian could be proud: the head of Athena, guardian of the city, and her bird, with the letters A Θ E to show the world that this was money "of the Athenians." A tetradrachm was the convenient denomination for commerce and silver because of the plentiful

Fig. 2. Above, a decadrachm of the post-Marathon period, grandfather of the Athenian "owls." Below, small change of the fifth century B.C., with the traditional owl types.

supply near by. So the first "owl" came into being.

The earliest issues (No. 1) are primitive, even crude, in execution. On the obverse of the coins the oversized round eye and the thick lips of the goddess are in the tradition of the archaic statues, while the owl with his stubby legs and tail is an appealing little fledgling, still slightly bewildered by this sudden fame. Behind his neck, the engraver of the die has balanced the composition with a sprig of olive, symbolic of Athena's gift to her chosen land. For some fifty years similar coins were issued, but by the end of the sixth century B.C. one notes a distinct change in the rendering of the obverse head (No. 2). The features of the goddess are now modelled with greater delicacy, in the manner of the artists of Ionia, some of whom may have found employment in the Athens mint.

In 490 B.C. and again in 480 Athens stemmed the threat of Persian invasion in the battles of Marathon and Salamis. Those crucial victories had a profound effect on Athenian life and art and their impression was stamped on the coinage itself. It seems likely that the unique series of decadrachms (FIGURE 2), of which fewer than a dozen specimens have survived today, was minted in commemoration of the Persian

defeats. On the standard coins (No. 3), upright olive leaves now decorate the helmet of Athena and tucked close to the neck of the owl is a tiny waning moon, possibly referring to Marathon, which was fought when the moon was past full.

With the addition of the olive leaves and the moon, the pattern of the tetradrachms is set for another 250 years; subsequent changes are purely stylistic ones. During the period after 450 B.C. the archaic smile and the almond-shaped eye grow less pronounced (No. 4) and are lost entirely in the fourth century (No. 5). Athena has developed into a mature Athenian woman; the charming youthful and remote goddess of the age of Pericles has vanished. Much worse things have happened to her owl, so inflated by his own importance that he becomes, with his gross head and scraggly plumage, little more than a caricature of his trim sixth century ancestors.

Coins such as these were struck well into the third century B.C., but in smaller quantity. At times the output of the mint must have ceased as Athens became more and more deeply embroiled in her struggle with Macedonia. Even in defeat, with foreign soldiers commanding her strongholds and her political life dominated by the Macedonian conquerors, Athens still is



Fig. 3. "New Style" tetradrachms, which may be dated from the late third century to the first century B.C. No. 6 is one of the few known examples of what is probably the earliest type. The magistrates' symbols appearing on Nos. 8 and 9 are the bonnets of the Dioscuri and a seated figure of Demeter.

Fig. 4. Imitations of Athenian money. A, an issue of Sabaces, Persian satrap of Egypt, struck before 333 B.C. B, a base silver tetradrachm from North Arabia. C, another Arabian copy, this time of a "New Style" piece. The illustrations in this article are from specimens in the collections of the American Numismatic Society, New York.

A

B

C



sued her "owls" sporadically, although in substance it was only a token currency.

BY 229 B.C. THE FORTUNES of the city had materially improved. The weakness of Macedonia enabled Athens to buy out the last occupation garrison on her soil and achieve unrestricted freedom, while a treaty of friendship with Rome further strengthened her position. It is generally believed that this was the occasion for a reorganization of the Athenian mint and the appearance of the "New Style" money. Strictly speaking these new coins are not in the line of direct descent from the "owls" of Pisistratus but, as members of the same family, their relationship is perhaps close enough to justify inclusion in the owl series.

After the death of Alexander the Great the trend gradually veered toward thinner and larger tetradrachms. This fashion Athens, too, adopted. The "New Style" pieces have the same weight as the old units but their flans are widely spread and far more symmetrical. Basically the types remain unchanged. On the obverse the Athena head is now copied from the gold and ivory statue by Phidias which stood in the Parthenon. The owl stands on an overturned prize amphora, such as was awarded victors in the Panathenaic games, while the sprig of olive has been replaced by a wreath circling the reverse type.

The four "New Style" pieces of FIGURE 3, covering a span of about 150 years, show a progression which is in many ways comparable to that of the "Old Style" series. The fresh youthful head of the goddess grows hard and set, even coarse, as one moves from the second century into the first. On the reverse the sleek owl develops into an unwieldy bird dominating a conglomeration of carelessly struck letters.

One of the most interesting features of the "New Style" coinage is the elaborate system of checks and precautions which Athens devised to safeguard the integrity of her money. Special mint magistrates, holding office for a year at a time, now inscribe their names on the coins themselves, at first in monogram (No. 6) and later in full. In addition a small symbol, the em-

blem of the first official, customarily appears to the right of the owl. No one is certain of the basis on which these magistrates were selected, but in some cases the office was undoubtedly an honorary one. So on an issue of the second century B.C. (No. 7) we find the name ANTIOXOΣ and the Seleucid elephant, a combination which has been interpreted as referring to Antiochus IV of Syria, who spent some time in Athens before he became king.

Not satisfied with fixing the official responsibility for the purity of the coinage, the mint added on the amphora a letter, ranging from A to N, to mark the month in which the individual pieces were struck, while other letters below the jar, such as the ME of No. 7, indicate either the workshop of the mint or the silver mine from which the bullion came. Hence every coin carried on its surface the complete record: its source, the exact month in which it was minted, and the magistrates in charge, their term of office establishing the year of emission. Unfortunately it is not all so clear to us today; the dating of the "New Style" issues remains one of the major problems of Greek coinage.

With No. 9, a piece of the first century B.C., we are not far from the end of the silver currency. Against

the Roman eagle the Athenian owl had little chance. By the time of Augustus, the Athena-owl tetradrachms had ceased to exist. Their life span had encompassed more than five centuries, and one need only glance at the hoard evidence to appreciate fully the volume of this coinage and the extent of its circulation. At Tell el-Mashkuta in Egypt some 6,000 "Old Style" pieces were discovered a few years ago; over 1,000 of the "New Style" issues were unearthed at Zarova in Macedonia. Inhabitants of regions as widely sep-

arated as France, Bulgaria, Tunisia and Persia secreted Athenian "owls" against the hazards of war and invasion. When the original supply failed, the rulers of India, Arabia and Egypt imitated the familiar coins to satisfy the demands of their people for known types of guaranteed probity.

Pisistratus, when he conceived his good and true coins, destined to travel to the remote reaches of the world as emissaries of the proud city of Athens, had wrought better than he knew.

ARCHAEOLOGICAL INSTITUTE OF AMERICA

FIFTY-SECOND ANNUAL MEETING

At the Royal York Hotel
and the University of Toronto

TORONTO, ONTARIO, CANADA

Wednesday, December 27
Thursday, December 28
Friday, December 29

1950



IN CONJUNCTION WITH
THE AMERICAN PHILOLOGICAL ASSOCIATION



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Fig. 1. The Odeion from the south during excavation. In the background are marble figures of Tritons and Giants, designed in the second century after Christ to decorate the facade of the Odeion as then remodelled. They now stand where they were reused c. A.D. 400, in the facade of a gymnasium built over the Odeion's ruins.

AGRIPPA'S

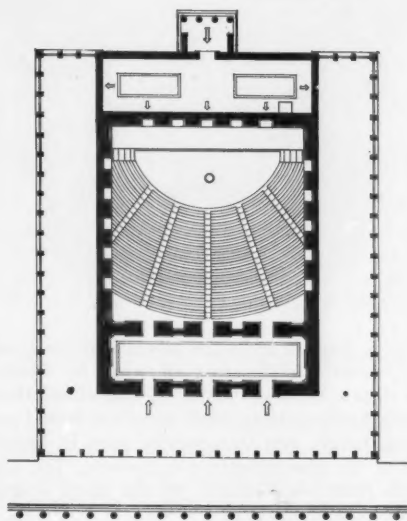
CONCERT HALL IN THE ATHENIAN AGORA

By Homer A. Thompson

Photographs by Alison Frantz

IN THE YEARS 1934 AND 1935 scholars of the American School of Classical Studies at Athens, working in the very middle of the Athenian Agora, i.e. the market place and civic centre of the ancient city, came down upon the ruins of a roofed theatre. Its floors were buried beneath three feet of tumbled roof tiles, broken marble, charred wood, and rusted iron fittings from the fire that had destroyed the building, as shown by associated coins, in A.D. 267.

Enough of the foundations remained to permit the recovery of the plan of the building: a



square auditorium, with marble seats for a thousand spectators, a narrow stage, a dressing room entered through a columnar porch, and, at the back of the building, a lobby through which the audience entered. Around three sides of this central core ran a balcony, facing outward, its floor on a level with the terrace of an earlier building, the Middle Stoa, to the south: hence a pleasant promenade for the citizens at any time, and a splen-

Fig. 2. Plan of the Odeion, taken at the level of the top of the auditorium.

did place from which to look down on such spectacles as the Panathenaic Procession.

For the restoration of the superstructure evidence was gathered from near and far by the industrious excavation staff. A few marble blocks remaining among the ruins, too bulky or too badly broken to have been worth removal, were identified as of the building. Many more of the architectural members were recovered from the "Valerian Wall," a fortification built to the east of the Odeion, in the later third century after

Christ, largely with re-used material drawn from buildings of the Agora that had been burned in A.D. 267. In the National Museum of Athens was recognized a great marble capital of the Corinthian order that had been brought to light in 1891 during the cutting of a trench for the Athens-Piraeus railway, which passes some 75 yards to the north of the building. Finally, from Eleusis, 12 miles to the west of Athens, was brought back the head of a colossal Triton that had once decorated the facade of the Odeion (cf. *ARCHAEOLOGY* 2.185).

All this first-hand evidence, and a slight admixture of analogies drawn from comparable buildings on other sites, were combined in a set of drawings by JOHN TRAVLOS, architect of the School's excavations. These drawings have recently been translated into three-dimensional form in the shape of a model, made from plaster-of-paris, by the technicians of the Agora staff under the direction of Mr. TRAVLOS.

The building as thus restored exhibits a curious mixture of Greek and Ro-



Fig. 3. Corinthian capital, now in the National Museum, Athens, found in 1891 and now identified as belonging to the Odeion. Height, 3 ft. 6 in.; weight, about 2½ tons. Place in building, about 65 feet above ground level.

man elements. The architectural details, such as the capitals and mouldings, are all in the Hellenistic tradition, and the scheme of lighting, through an open colonnade at the rear of the building, is copied from the Erechtheion, which rises on the Acropolis in clear view of the Odeion.

On the other hand, the combination of a high central core with surrounding balconies, and the engineering achievement of roofing an auditorium eighty feet square without an interior support, smack of Rome. The natural inference would be that the design was produced by a team of architects comprising both Greeks and Romans.

This may, in fact, have been the case, for it is now clear that our building is the one referred to by the second century traveler Pausanias as "the theatre which they call the Odeion" and by Philostratos as "the Agrippeion in the Kerameikos." It was built, therefore, by Marcus Agrippa, the minister of the Emperor Augustus, about the year 15 B.C., and was no doubt the chief reason for his official designation as "Benefactor of the People of Athens."

In the circumstances of its erection, as also in the hybrid nature of its design, the Odeion of Agrippa emerges from its long obscurity as a striking illustration of the blend of Greek and Roman elements that marked the visual arts in the Augustan period no less than the contemporary literary forms of Vergil and of Horace. For close on three hundred years the building dominated its ancient market square; its burning by northern barbarians in A.D. 267 dramatically symbolized the beginning of the end of the Graeco-Roman world.



Fig. 4. Capital from the interior of the Odeion, from a restoration drawing by Marian Welker. This variation of the Corinthian capital, comprising both acanthus leaves and lotus petals, was occasionally used in Greece from the first century B.C. onward. The capitals from the Odeion are the finest known examples of the type.

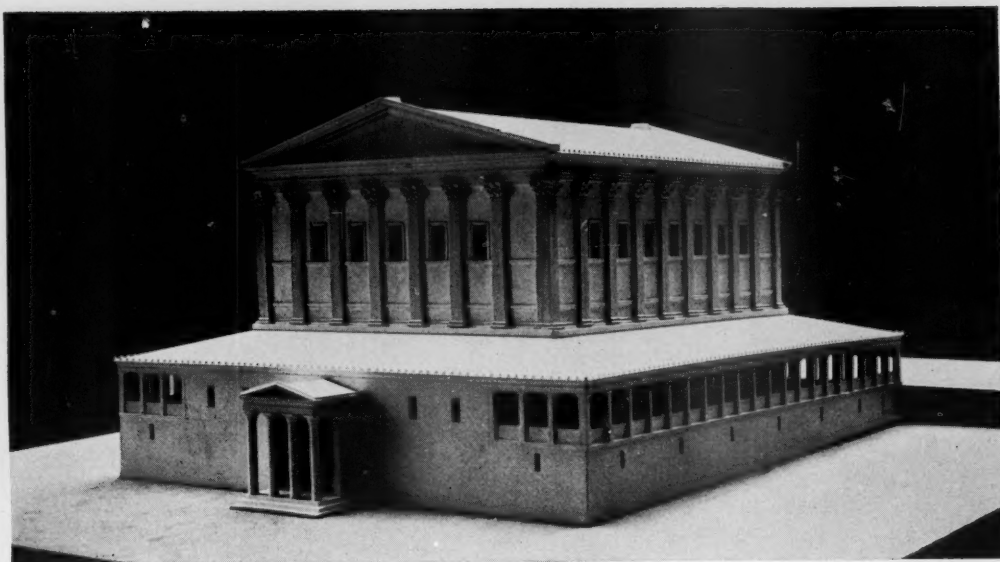


Fig. 5. The model of the Odeion by John Travlos, from the northwest. The raised platform at the rear of the Odeion, right hand side, is the terrace of the Middle Stoa.



Fig. 6. The Travlos model of the Odeion, from the south-east. Note the open colonnade in the rear end of the building and the interior colonnade between lobby and auditorium to permit the lighting of the interior. The three doors opening off the balcony admitted the audience to the lobby.

[It is not true, as some commentators have held, that the verses persistently attributed to Rhys Carpenter,

"As our odium turns into an odeum
Our tedium will become a Te Deum,"

refer to the Odeum or Odeion of Agrippa at Athens. This affront to poesy had as its target the Odeum of Herodes Atticus at Corinth, an archaeological derelict of notable extent.—Ed.]



THE DURA AIR PHOTOGRAPHS

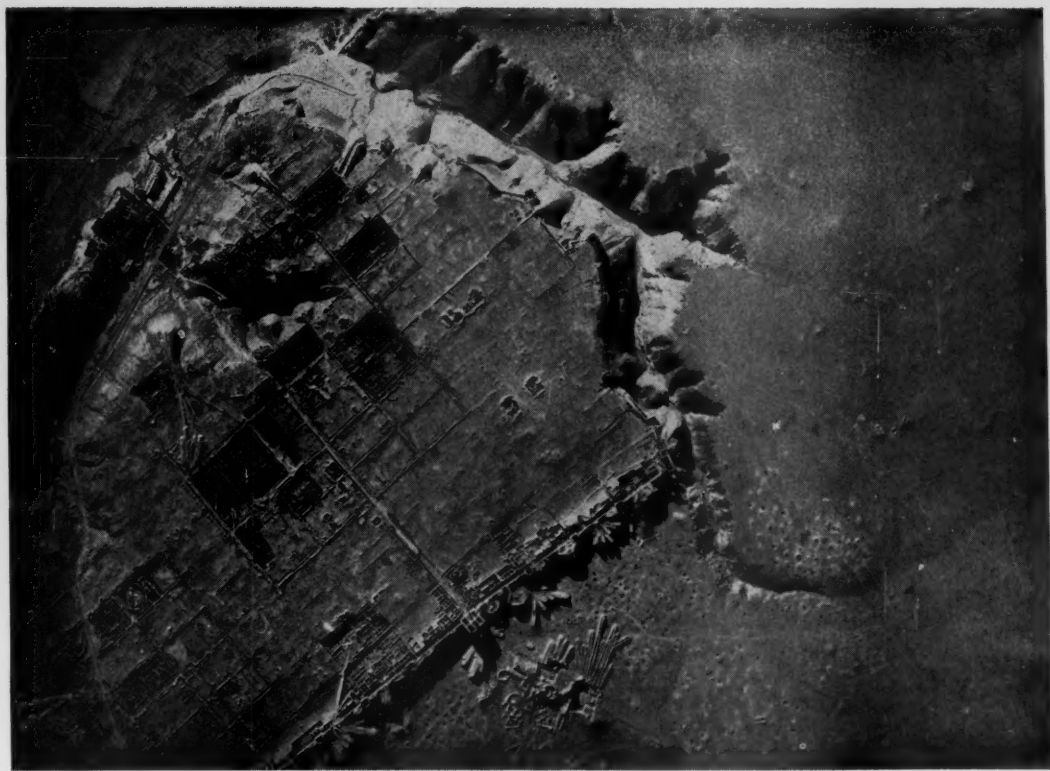
WHEN THE MACEDONIAN INHERITORS OF ALEXANDER'S empire in Asia set about consolidating their scattered holdings, they could not supplement their surface inspections with aerial reconnaissance; but we may call upon this twentieth century tool of the archaeologist to show how well they knew their business anyway.

Founded about 300 B.C. to guard a Euphrates crossing and the river road, Dura knew no discrimination of races or religions. Garrisoned at first by Macedonians and Greeks, who called it *Europos* (and themselves "Europeans"), it attracted Beduin from the desert, Syrian villagers, city Arabs from Palmyra and the west, Parthians from Iran, and empire-building Romans. In 256 A.D. it attracted something else, the pitiless Sassanian army of Sapor I. The defenders took many Sassanians to eternity with them, but Sapor's men captured and looted the place and Dura disappeared from history.

In 1921 it was identified again; some trick of trenching tools swept the mounded sand away from the painted walls of the temple of the Palmyrene Gods, leaving revealed the

portraits of Dura's first citizens, Greek by name but sons of the Orient in features, dress, and manners. FRANZ CUMONT dug Dura for the Institut de France and found Greek inscriptions, and writings on parchment far more precious than gold. Thereupon Yale took up the concession and excavated Dura from 1928 to 1937, in the hope—abundantly gratified—of finding further documents of this kind. We are not going to try to list in these few lines the discoveries of twelve campaigns, but these unusual photographs suggest the extent of the site and the sort of questions it answers—or simply asks.

Dura was placed at a point where the Euphrates bluffs are broken by two small wadis, dry watercourses cutting back into the plateau, so that on three sides these natural defenses needed only cresting with ashlar masonry to be invulnerable. On the fourth side, facing west across the desert, the engineers were required to build a high, stout wall. Near the middle of this they built a great gate, the Palmyra Gate, a fortress in its own right, conspicuous in the vertical view and visible in the obliques. From this the



principal street traversed the town. Within the walls, the city was laid out in good Hellenistic fashion, in more than one hundred uniform rectangular blocks.

Those which have been dug, shown clearly in the pictures, contain private dwellings, or temple complexes on the oriental pattern, or public bazaars, or barracks, or baths. In part of one block, visible in the vertical view, is a pocket-sized Roman amphitheater. Along the west wall the digging was particularly interesting and rewarding, because here had been the shrines of various cults, Zeus Kyrios, Aphlad, Adonis, Tyche, and Mithras, a Jewish synagogue, and a Christian chapel, as well as the temple of the Palmyrene Gods. In the third century A.D., in expectation of attack, the defenders of Dura had reinforced the city walls with mud brick, and this cushion had covered these chambers and marvelously preserved their decorations, including the astonishing mural paintings of the synagogue and the Christian chapel.

On the edge of the Euphrates cliff was poised the interior stronghold, the acropolis of Dura. Within it had been the palace of the Parthian governor, and earlier still, perhaps, the headquarters of the Seleucid commander. North of it the Roman governor, the Dux Ripae or Duke of the Bank, built his official palace, and south of it the

Yale explorers erected their staff house and storerooms.

Outside the Palmyra Gate hundreds of tombs had been dug in the soft rock, visible from the air as pock-marks in the plain. Most of these had been looted, but occasionally one yields funeral offerings of interest. Here also were the three mines dug by Sapor's sappers in their efforts to reduce the city, and near the southwest corner tower was the ramp over which the final murderous assault carried. The finger-like welts on the surface are dump lines from the decaville, the miniature railroad indispensable to any large-scale excavation.

Across the city runs the modern road, instinctively welcoming the protection of the walls built to protect the river road more than two millennia ago. Outside the city, on all sides but one, stretches the all but limitless desert; to the east is the sweep of the splendid river.

These photographs were taken by the French Air Force and are reproduced here by courtesy of the Yale University Art Gallery. For detailed analyses of the city plan and individual buildings, see the many Yale volumes of Dura Reports; and for another extraordinary view of Dura-Europos as it lies deserted again, turn the page.

—J. J.





A SECOND BYZANTINE SILVER TREASURE FROM HAMAH

By Marvin C. Ross

*Curator of Mediaeval and
Subsequent Decorative Arts,
The Walters Art Gallery*

SOME YEARS AGO A BYZANTINE silver treasure of the sixth or seventh century was published by the late Professor CHARLES DIEHL as having been found at Hamah in Syria. At the time the treasure belonged to ABOUCASSEM of Beyrouth. Later it was acquired by HENRY WALTERS, and now forms part of the Byzantine collection in The Walters Art Gallery. There was considerable discussion about the circumstances of the finding of the treasure, and Professor DIEHL tended to link it with the so-called Antioch chalice and the pieces associated with it, all now in the Metropolitan Museum of Art. Father R. MOUTERDE of Beyrouth pointed out that this was not likely, since the Walters' treasure was seen in part at least in the church at Hamah in 1910 by the late JOHANN GEORG, Duke of Saxony, who published a short account of it. The custodian told him it had once been in the church, then buried about eighty years before, during some troubles, and later found again in 1909. An old photograph, taken in the church, which shows all the pieces now in The Walters Art Gallery and one additional spoon, seems to confirm the account given by JOHANN GEORG of Saxony.

A second and much smaller Byzantine treasure, also said to have been found on the banks of the Orontes near Hamah, reached America in 1947 and was in part



Fig. 1. Nielloed silver altar cross, from Hamah, reproduced by courtesy of Mr. Fahim Kouchakji (John D. Schiff photo).

seems quite likely), and since the record of this might otherwise be lost, it seems wise to publish a brief notice of the pieces that were said to compose the treasure. The statement by the Syrian who sold them that they were found at Hamah is also of some importance in the study of Byzantine silver from Syria.

The largest and most important piece (FIGURE 1) is a silver cross, probably for the altar since it has a prong at the base for fitting into a socket. It is beautiful in the simplicity of its outlines. The decoration consists of an engraved line which fol-

shown at the Exhibition of Early Christian and Byzantine Art held by The Walters Art Gallery at the Baltimore Museum of Art (the glass flask now in the Toledo Museum, mentioned in the Catalogue as having been found with the treasure, is an error). There is no indication that this treasure originally was with the larger and more important one from Hamah, but it is so closely related stylistically and technically that it seems perfectly plausible that it came from the same region and quite possibly from the same workshop. Upon dispersal of the Brummer Gallery this second silver treasure was in part acquired by The Walters Art Gallery and in part by a New York antiquarian.

Since the fact that these pieces were supposed to have been found together (which

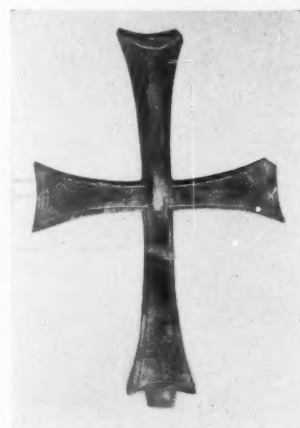


Fig. 2. Small silver altar cross from Hamah (courtesy The Walters Art Gallery).



Fig. 3. Silver liturgical spoon, from Hamah, reproduced by courtesy of Mr. Fahim Kou-chakji (T. A. Caruso photo).

shows the outline of the cross and a nielloed inscription in Greek taken from the New Testament. The purity of the design and the elegance of the lettering of the inscription place this cross among the very best examples of Byzantine silver work from Syria.

The second cross (FIGURE 2), although similar, is smaller, simpler, and without any inscription, and is less complete. In addition to resembling very closely the crosses in the treasure found earlier at Hamah, these two crosses have a technical peculiarity in common with the former. At the intersection of the two arms in each instance there is a small circular impression which was probably used by the silversmith in making the cross, a detail which I have never

noticed on Byzantine silver crosses found elsewhere.

The other pieces in the treasure are a spoon (FIGURE 3), very like a spoon in the earlier treasure but with the addition of a feather design on the back, a round box (FIGURE 4) with the cover missing, decorated with lines and resembling another complete box

from Syria exhibited at the Byzantine exhibition in Paris in 1931 by Major ROYALL TYLER, and a small repoussé plaque (FIGURE 5) with the standing figure of the Madonna in the Orante position, with a star above each raised arm and the word KYPIE and the letters IOHOA on either side.

This small treasure adds several interesting pieces to the fast growing group of Byzantine silver from Syria. It also raises questions which, it has been increasingly obvious, must be investigated with the large amount of Byzantine silver that has been found in the last few decades—in Syria, in Egypt, in England and elsewhere. Were there great centers only, from which the silver was shipped, or were there also less important places where it was made, as seems possible from the papyri found in Egypt? Was there a general international style, or were the products of the regions sufficiently different so that we can identify separate schools? Publication of all the silver found in the several regions where it seems to have been made might bring an answer to these questions. It is for these reasons that the recording of a small treasure such as this seems worthwhile.

Fig. 4. Silver box for wafers, from Hamah, reproduced by courtesy of The Walters Art Gallery.



Fig. 5. Small silver plaque, from Hamah, reproduced by courtesy of The Walters Art Gallery.

THE EGYPTIAN REVIVAL IN AMERICA

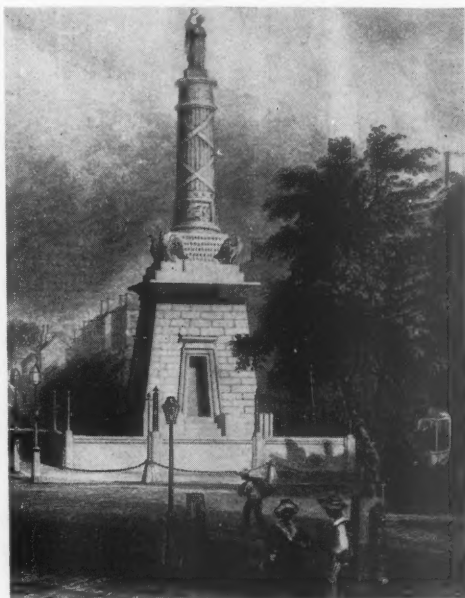
By Claire Wittler Eckels

Baltimore born, Mrs. Eckels is a graduate of Oberlin College (A. B., 1943) and of The Johns Hopkins University (M. A., 1946; Ph. D., 1950). From 1945 to 1949 she taught art history at the Greenwood School, Ruxton, Maryland.

THE EGYPTIAN STYLE is monotonous, sombre, heavy, and unfit for our use; and, if studied exclusively, till regard for antiquity engenders love for ugliness, is destructive of a pure taste." MINARD LAFEVER, repeating JAMES ELMES' words, gave this warning to Americans in *The Beauties of Modern Architecture* (1835). Yet there was little 'pure taste' in the second quarter of the nineteenth century; eclecticism was rampant. As travelers to Europe brought back new ideas in architectural design, and as archaeologists uncovered remote civilizations, the power of the prevailing style, Classic Revival, was undermined.

Since THOMAS JEFFERSON had brought the *Maison Carrée* to Richmond, and BENJAMIN HENRY LATROBE had spread classicism from New York to New Orleans, there had been only one major style to follow. With the aid of numerous builders' books, artisans, who had previously worked solely with saw or trowel, designed temple fronts for every type of building. To architects bored with conformity and dissatisfied with the excessive, if not banal, use of classical forms, the new eclecticism came as a stimulus to ingenuity. Gothic, Romanesque, French, and Italian schemes were accepted with most favor.

However, in the search for a style unassociated



The Baltimore "Battle" Monument of 1815 was the first Egyptian Revival monument in America. Maximilian Godefroy tempered the innovation by adding classic elements and by relying on the association of Egypt with the dead. (Courtesy of the Enoch Pratt Free Library, Cator Collection of Baltimore views.)

with any particular European country, the architecture of the East came into view. Not only did it have an exotic appeal sought after in that period of romanticism, but it was also an unexploited architectural field. Of the Byzantine, Mohammedan, and other Oriental forms and decoration which were attempted, the Egyptian were the most frequently adopted. The Nile country had been popularized by war, literature, and archaeological study. Moreover, Egypt had a greater power of suggestion—mystery and timelessness—than the other countries of the East. The experiments made in this field attest to its power of attraction. No other minor architectural revival can exhibit such a galaxy as the Egyptian: ROBERT MILLS, WILLIAM STRICKLAND, ALEXANDER JACKSON DAVIS, THOMAS U. WALTER, JOHN HAVILAND, MAXIMIL-

IAN GODEFROY, SOLOMON WILLARD, MINARD LAFEVER, ROBERT CARY LONG, JR., and JAMES RENWICK.

In spite of the investigation they received, Egyptian forms were never widely understood in America. They remained alien to the taste and thought of this country. Consequently, no set of principles directing their use was formulated, and the revival had less strict authenticity than the Greek had, for example. Egyptian architecture was less easily adapted to the

building types required in America, and because of its monumentality and sculptural decoration it was expensive in construction. Nevertheless, illogical and inappropriate as it was, the Egyptian was nurtured for a half century like a hothouse plant, to bud but never to take root in the New World.

The initial impetus to the revival came from NAPOLEON's expedition into Egypt in 1798-99. Although books such as SAVARY'S *Letters on Egypt*, VOLNEY'S *Travels Through Syria and Egypt*, ANTES' *Observations on the Manners and Customs of the Egyptians*, and BRUCE'S *Travels to Discover the Source of the Nile* had been published in the last two decades of the eighteenth century, no work had appeared extensively treating the art of the Pharaohs. However VIVANT DENON, after returning from the campaign, wrote *Travels in Upper and Lower Egypt, During the Campaigns of General Bonaparte*. He described in this book the architectural and sculptural remains, to study which he had purposely made excursions. But foremost in importance to artists were the monumental and definitive volumes which followed, *Description de l'Egypte* ou *Recueil des Observations et des Recherches Qui Ont Eté Faites en Egypte Pendant l'Expédition de l'Armée Française*.

Naturally France first experienced the impact of the art of the Nile country. The fountain which BRALLE designed and the peristyle which EUGÈNE DE BEAUHARNAIS placed in front of his mansion are typical examples in Paris of the use of Egyptian motifs. In England ROBERT LUGAR offered Egyptian designs in his *Architectural Sketches for Cottages*, and THOMAS HOPE made use of the style in his *Household Furniture and Interior Decoration*. But the British revival made little progress beyond the guide books. Occasional appearances of it could be cited, among them the Egyptian Hall in Piccadilly, designed by P. F. ROBINSON for EDWARD BULLOCK's exhibitions, and the public library that

FOULSTON erected at Plymouth, Massachusetts.

THE MOST RENOWNED Egyptian Revival structure is American; it is the Washington Monument in the District of Columbia. It has come to be as symbolic of this country as once it was of Egypt. ROBERT MILLS, the designer, had not planned the monument in so severe a scheme. Working in the heyday of the Greek Revival, he designed a classic pantheon at the base and classic pediments (but with cavetto cornices, winged disks and asps) over the two doors.

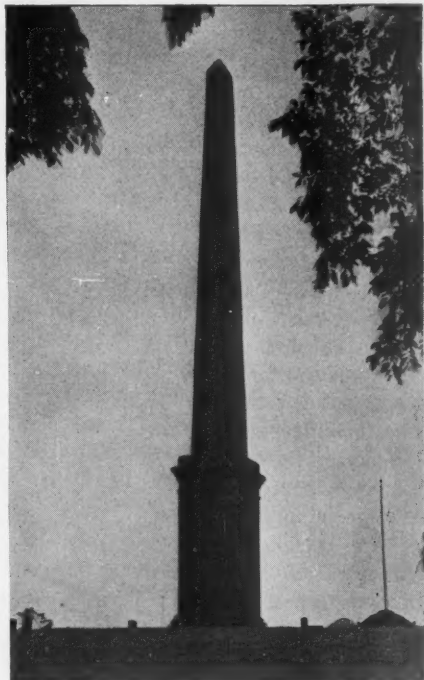
Lack of funds prevented the construction of the former, and in 1884 one door was reduced in size and the other was blocked up. Although the monument rises 555 feet, a height to which no Egyptian obelisk ever aspired, its proportions of width at base to height carefully follow ancient examples. However, in three major respects the Washington Monument departs from its prototypes. It is not a monolith, and it is not embellished with the usual hieroglyphics, which would have been both perplexing and inappropriate. Moreover, it contains the remarkable engineering feat of an interior ascent.

South of New Orleans is a smaller replica, the Chalmette Monument, begun in 1856, which shows the Egyptian door.

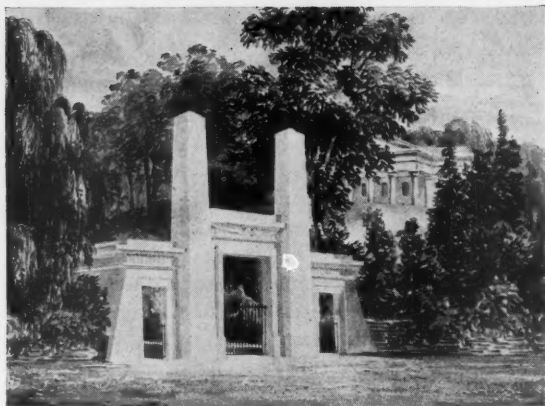
Obelisk and pyramid forms were utilized in other monument schemes. ROBERT MILLS, who had approved of them in an article in the *Analectic Magazine* of 1820, offered an obelisk in the Bunker Hill competition

five years later. He was defeated by SOLOMON WILLARD, whose obelisk was stripped of its ornament in construction. Another was the proposed monument to WASHINGTON for Murray Hill in New York City. Its designer, MINARD LAFEVER, conceived it as an obelisk rising from an extensive base building with all its 500 feet elaborately decorated. The fantastic scheme was accepted in 1854, but it was not carried out.

Another that was never built was a design submitted



The use of great obelisks, which culminated in the Washington Monument, was anticipated in 1792, in this monument to Columbus in Baltimore. (Courtesy of the Enoch Pratt Free Library.)



in the Washington Monument competition in Baltimore. It had the form of a pyramid with a great portico, and at the time it was thought, probably erroneously, to have been the work of BENJAMIN HENRY LATROBE. Yet before any of these monuments were projected, even before the Egyptian Revival had begun, an obelisk had been raised in Baltimore to CHRISTOPHER COLUMBUS. The French consul in that city, the CHEVALIER D'ANMOUR, built it of brick and cement on his estate in 1792. It probably bears the distinction of being the first Egyptian monument in America unassociated with a grave.

Likewise in Baltimore is the first monument inspired by the revival. The Battle Monument, as it is popularly known, is characteristic of early designs in its combination of Egyptian and classic elements. The base has battered walls, cavetto cornices, winged disks, and four black doors suggesting a cenotaph. The upper section has the form of the Roman fasces surmounted by a personification of the city. Inasmuch as the memorial commemorated those fallen in defense of Baltimore during the British attack in 1814, the Egyptian design, long in use for sepulchers, was deemed symbolically suitable. When the French exile, MAXIMILIAN GODEFROY, presented this design in 1815, he offered as one alternative an obelisk to be built of verd antique. Fortunately the more original scheme was selected, and in 1825 it was completed.

Although the Egyptian style is most famous in public monuments, its pagan motifs appeared most frequently in Christian obsequies and tombs. The hearses of GENERAL LAFAYETTE and of PRESIDENT JAMES MADISON, for example, employed Egyptian designs. Because of its connotations of timelessness and gloom, the style had come into use long before the revival.

Robert Cary Long, Jr., offered the Greenmount cemetery in Baltimore this Egyptian gateway as well as one in the mediaeval style. Versatility in handling various styles was characteristic of architects in the eclectic period. (Courtesy Greenmount Cemetery.)

Obelisks for graves were scarcely thought of as exotic importations, for they did not come to America through direct Egyptian influence. Already in the seventeenth century BERNINI's obelisks and those transported from the Nile region had been erected in Italy. French sculptors of the seventeenth and eighteenth centuries employed obelisks in sepulchral monuments, such as that of the MARSHAL OF SAXONY in Strasbourg by PIGALLE. Similar schemes of obelisks, either singly or in combination with sarcophagi, were carried to England and America mainly through builders' guide books, among them the popular BATTY LANGLEY's *Ancient Masonry* and *The City and Country Builders' and Workman's Treasury of Designs*.

The success which obelisks had achieved for the embellishment of graves encouraged architects to attempt other Egyptian designs. The granite vault of Mayor JAMES CALHOUN of Baltimore in the Westminster Cemetery imitates the pyramid of Caius Cestius in Rome, and the O'DONNELL vault in the same cemetery reflects Egyptian influence in its cavetto cornices and outspread wings. Possibly MAXIMILIAN GODEFROY furnished these designs. His gate posts for the Westminster Cemetery are obelisks with winged hourglasses engaged to pillars with cavetto cornices. They were erected before 1815, marking one of the earliest occurrences of the Egyptian style in a use which reached its height of popularity in the 1830's and 1840's. Naturally the pylon was most easily adapted to cemetery gateways. In its simplest form it appears in the Granary Burying Ground in Boston, by SOLOMON WILLARD. It is ornamented with a winged hourglass, winged disk and inverted torches, and is crowned by a cavetto cornice.

More ambitious in type is HENRY AUSTIN's gateway for the Grove Street Cemetery in New Haven, Connecticut, in which lotus bud columns stand in the broad opening of the pylon. Pylon entrances were built in many cities in the East, but the designs in which Egyptian motifs were assembled with no regard for archaeological backing are more interesting. One such original combination of elements is seen in the

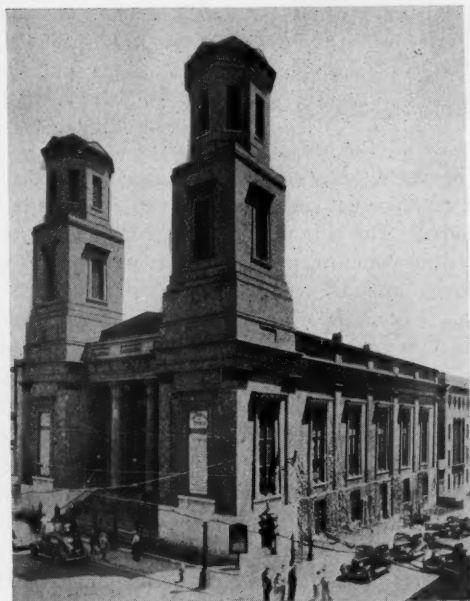
water color which ROBERT CARY LONG, JR., offered to the Greenmount Cemetery in Baltimore. His scheme had three doors with obelisks between them; battered walls, cavetto cornices and a winged disk completed its Egyptian appearance. The design was rejected in favor of LONG's mediaeval entrance.

IF THE PAGAN EGYPTIAN was an inconsistent choice for cemeteries, it was yet more inappropriate in church architecture. Not sharing with monuments and memorials the advantage of precedent, the Egyptian was used cautiously at first in the furnishings of churches. GODEFROY, who was cited previously as one of the earliest allies of the style, used an obelisk to

support the baptismal basin in Old St. Paul's Church in Baltimore. For the Unitarian Church in the same city he designed a magnificent tour de force, an organ whose end pipes were clustered to represent Egyptian columns. The Monumental Church in Richmond formed an easy transition for the revival to pass from furnishings to the actual structure, for the church held overtones of death. It was built by ROBERT MILLS in 1812 in memory of the lives lost in a disastrous theater fire on that site. Although the building is basically classic, its plain walls and exterior columns convey Egyptian suggestions.

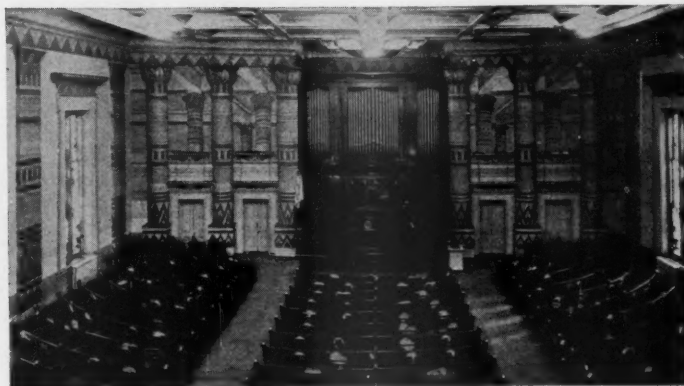
Ultimately entire church structures were conceived in the new style. Having no prototypes, they relied on the ingenuity of architects to combine favorite Egyptian motifs. One of the more extreme and, for what it attempted, relatively successful is WILLIAM STRICKLAND's First Presbyterian Church in Nashville, Tennessee. The architect prepared two designs modeled upon similar lines, but with a change of décor. The Egyptian was preferred to the classic scheme, and it was built in 1848. Although classic reminiscences on the exterior remain, the Egyptian columns in the portico and the cavetto cornices surrounding the church and over the windows predominate. STRICKLAND gave free play to his imagination on the interior, for at the altar end a hypostyle hall extends in painted perspective.

STRICKLAND may also have designed the Mikveh Israel Synagogue of 1820, according to the attribution of Mr. JOSEPH JACKSON, and STRICKLAND's pupil, THOMAS U. WALTER, that of the Crown Street Synagogue of about 1850. Both of these essays in the Egyptian style were erected in Philadelphia, but neither is extant. No mention of church architecture, however brief, is complete without recalling ALEXANDER JACK-



The pagan Egyptian was carried to the very altar of Christian art. In the First Presbyterian Church, Nashville, Tennessee, Egyptian decoration was applied to a traditional plan. (From *Grandeur in Tennessee*, courtesy of J. J. Augustin, Publishers.)

On the interior of the Nashville church William Strickland, the architect, devised a masterly piece of painted perspective. (From *Grandeur in Tennessee*, courtesy of J. J. Augustin, Publishers.)





Familiarity with Napoleonic publications fostered an extravagant use of Egyptian motifs in prisons. For a living burial none was more impressive and monumental than the New York "Tombs," designed by John Haviland. (Courtesy of the New York Public Library, ENO Collection of New York City Views.)

SON DAVIS's experiment with wood. The façade of his church at Sag Harbor, Long Island, has the battered walls and other characteristics of the revival style, but a cavetto cornice was too difficult to attempt in this material. The structure dates sometime between 1835 and 1843, at which date the classically derived tower was drawn.

The style which honored America's first president, heroes and dead was deemed equally appropriate for structures incarcerating its criminals. If the Egyptian prisons built in the 1830's were among the least successful works in the revival, it was not due to any lack of effort from the architects. On the contrary, they tried perhaps too ambitious a program of Egyptian elements. They pilfered the *Description de l'Égypte* of all the features of the style—battered walls, pylons, bud and flower columns, cavetto cornices, winged disks and hieroglyphics. The accumulative result was massive and clumsy, formidable and entombing. THOMAS U. WALTER's Philadelphia buildings, the Debtors' Jail and the Women's Prison, and JOHN HAVILAND's New Jersey State Prison at Trenton and the New York Halls of Justice are outstanding examples.

The simplest handling of Egyptian elements appears in the Croton Reservoir, now the site of the New York Public Library. The battered walls suggested the function of the structure. (Courtesy of the New York Public Library, ENO Collection of New York City Views.)

The latter, known as the 'Tombs,' was conceived on a monumental scale, with its various parts boldly displayed. The entrance was marked by a portico of ponderous columns, and the corners were pylons with columns 'in antis' connected by curtain walls. Its efficient internal organization was exemplary, for HAVILAND was noted for his reforms in prison planning. ALEXANDER JACKSON DAVIS claimed that HAVILAND based the facade on a scheme which he had entered in the competition. The firm of TOWN AND DAVIS, which won the second prize, had presented a design with two monumental porticoes in a curious juxtaposition of Egyptian and classic. The one by DAVIS was modeled after the temples at Karnak and Philae with columns between pylons, and the other



portico, by ITHIEL TOWN, was inspired by the Athenian Propylaea on the Acropolis.

The Egyptian Revival spread north and south, east and west, and notwithstanding its limited possibilities it appeared in practically every major type of building. RUSSELL WARREN built an Egyptian railroad station in New Bedford, Massachusetts. HAVILAND used the style in a court house in Essex County in New Jersey. JAMES RENWICK offered an early illustration of functional architecture when he gave battered walls to the Croton Reservoir in New York City. A. J. DAVIS, who claimed that he had exhibited the first Egyptian designs in 1828 at the National Academy of Design, published a plan for a schoolhouse in the Egyptian manner in *Rural Residences*. In the same style he designed the Lyceum of Natural History in New York. In the South THOMAS S. STEWART erected the Medical College at Richmond. Its discreet use of battered walls, its sustained unity and its simple clarity of decoration mark it as one of the most accomplished of Egyptian Revival designs. Farther south the New Orleans customhouse suggested the influence of Nile

art. And in the west BULLOCK, who owned the Egyptian Hall in London, built another in Cincinnati, which Mrs. FRANCES TROLLOPE bought. Houses and office buildings in this style likewise were scattered throughout the country. Meanwhile, Egyptian collections were being assembled, one of which was that of COLONEL MENDES COHEN, now in The Johns Hopkins University.

The Egyptian Revival dwindled to an end as the mid-nineteenth century passed. Yet occasionally the art of the Pharaohs is recalled wherever an atmosphere of mystery or exotic unreality is desired. Hence Masonic halls and fraternity houses use its motifs to furnish the décor of rooms or, less frequently, entire structures. More than a century ago A. J. DAVIS drew an Egyptian proscenium for a theater in Alexandria. Today the Grauman Theater, in Hollywood, and the Metropolitan Theater, in Houston, Texas, exhibit Egyptian elements in overwhelming abundance. But aside from great examples there are many small commonplace things, like the reverse of a one dollar bill, where the art of Egypt reasserts its timelessness.



The Medical College in Richmond, Virginia, shows the power and beauty of Egyptian Revival work when the motifs were used with restraint and decorum. (Courtesy Richmond Chamber of Commerce.)

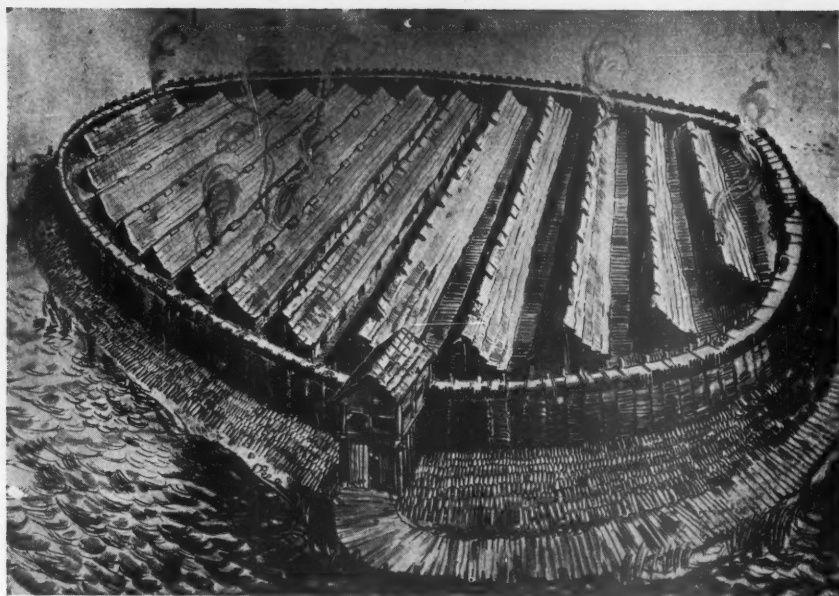


Fig. 1. Biscupin, Poland. An artist's reconstruction of the fortified village as exhibited in the small museum on the site of the excavations. Note the log road, the breakwater, the rampart, and the gateway, and see also Figure 2. The village was composed of from 80 to 100 huts built on birch sticks resting on a peat bog. Parallel lanes, paved with thick oak logs, were laid out between the houses; there was also a semicircular road within the rampart. (Courtesy Institute for Researches on Slavic Antiquities)

DURING SEPTEMBER, 1949, I had the opportunity of visiting some important geological and archaeological localities in Europe, particularly in England, France, Czechoslovakia and Poland, as guest of various geologists and prehistorians. One of the localities visited was of particular interest, and since little

has been written on the site in English, and apparently nothing in American publications, it is thought that a brief mention might be desirable at this time.

The site in question dates from the Early Iron Age, and is located at Biscupin, 6 miles south of Znin in the province of Poznan in Great Poland. The site, originally discovered in 1934, was intensively excavated until the outbreak of World War II. The work was done under the direction of Professor J. KOS-TRZEWSKI of the University of Poznan, and a report

THE IRON AGE VILLAGE AT BISCUPIN

By Horace G. Richards

Dr. Richards, a geologist, is a University of Pennsylvania faculty member, one of the editors of Earth Science Digest, and Associate Curator of the department of geology and paleontology, Academy of Natural Sciences, Philadelphia.

was published (in Polish) in 1938 as well as a brief summary in an English periodical.

Shortly after the German invasion of Poland, in 1939, some German scientists attempted to work the site, but soon abandoned it and covered it with sand, in which condition it remained until after the liberation of

Poland in 1945. The site was then reopened and has been carefully studied to the present day under the able direction of Dr. Z. RAJEWSKI.

During my brief visit in 1949, several field excursions were arranged by Dr. B. HALICKI, of the Museum Ziemi in Warsaw. One of these, to Biscupin, was made possible by the cooperation of the Instytut Badania Starożytności Słowiańskich (Institute for Researches on Slavic Antiquities) of the University of Poznan, in particular Mr. W. SZAFRANSKI and Mrs.

S. SLAWSKA. To the latter I am indebted for much of the information contained in this article.

The excavations at Biscupin have disclosed a fortified wooden village of the Lausitz culture, dating from the Early Iron Age, between approximately 700 and 400 B.C. The village was situated on a former peat bog on a promontory in the Lake of Biscupin, and consisted of 80 to 100 huts arranged in communal style. There is evidence to show that some of the huts had been destroyed by fire and that not all the village was of exactly the same date.

All the houses were built on the same plan; at the corners there were rounded pine posts, in each of which were cut vertical grooves running the entire length of the post and facing in directions ninety degrees apart. At the bottom the posts were supported by cross pieces, running through them and projecting on either side. Between these corner posts were flat

posts, usually of oak, with two vertical grooves facing in opposite directions. Into these grooves were slid beams of rough-hewn planks, which rested one on top of the other. In some of the better preserved huts as many as three planks still remain in position.

It is apparent that the site was finally abandoned as a result

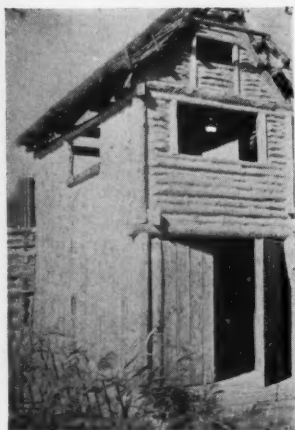


Fig. 2. Biscupin, Poland. Reconstruction of the gateway to the fortified village. The ramparts show evidence of destruction by flood and fire. The oldest rampart, on the north side of the village, was entirely washed away by the waves of the lake; later, the village site was slightly diminished in size, a break-water was constructed, and a second rampart was built to guard the village from attack. (H. G. Richards photo)

of inundation by the waters of the lake. The site was covered with a thick layer of sand and mud, which protected the remains against atmospheric influences.

Excavations have revealed a large number of tools, ornaments and weapons and even a few pieces of furniture such as the lower part of a plank bed found in one of the huts. Sherds of earthenware vessels



Fig. 3. Biscupin, Poland. When the settlement was founded, the level of the lake must have been considerably lower than it is today. Evidence for this is that the hearths of many of the excavated huts are now beneath the surface of the water. During the course of the habitation of Biscupin, the water level began to rise so that the inhabitants were forced to raise the floors of the huts and to lay a fresh surface of birch poles on the lanes. (H. G. Richards photo)

were numerous as well as implements of iron, horn, bone, and wood, and ornaments of iron, bronze, glass, and amber. Other discoveries included a solid wooden wagon wheel—the first of its kind found north of the Alps—an oak axle from a cart, numerous carbonized grains of corn, wheat, and barley, and the skeletal remains of animals, mostly domestic.

Two and a half millennia ago, Great Poland, like Silesia and the whole of central Poland as well as eastern Germany, was inhabited by an ancient (Slavonic?) agricultural people whom we call the Urn-field people of Lausitz type. Being threatened with invasion, perhaps by the Cist Graves and Face Urn people of Pomerania who were probably of ancient Baltic stock, they took refuge in forts constructed of wood and earth and in certain inaccessible places, mostly on islands and promontories. Nothing but the necessity of defence could have induced these prehistoric inhabitants of Biscupin to establish themselves on the damp and peaty promontory extending into the lake, which was both unhealthy and unsuitable for building. This promontory, surrounded on three sides by the waters of the lake and on the land side by a marsh, making it practically an island, was further fortified by a wooden rampart filled with beaten earth which extended around the entire site.

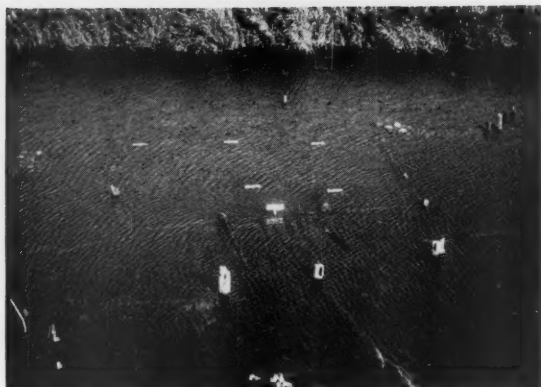


Fig. 4. Biscupin, Poland. The ground plan of the huts can frequently be made out in the excavations. These huts usually contained two rooms, a main one and a vestibule, with sometimes a third small room. The floors were made of wooden beams, usually covered with a layer of clay. To the right of the entrance, in the main room, was the round or square hearth made of stones and usually covered with a layer of clay. (H. G. Richards photo)

The exact position of the Lausitz culture in the pre-history of Europe has for a long time been a matter of speculation. The culture first appeared in central Europe about the thirteenth century B.C., and existed for about a thousand years. While the exact limits of the culture are not known, it is thought to have been concentrated between the Oder and Bug Rivers, although traces have been found as far west as Magdeburg, and as far south as the Danube near Vienna.

The discussion of the Lausitz Culture has unfortunately frequently been given a political significance. Most German writers have maintained that the Lausitz Culture was developed by the North Illyrians who later migrated southward to what is now Yugoslavia and western Hungary (Illyria), and that the original homeland of the Slavs lay farther east in Polesia and northern Volhynia, near Pinsk and the Pripet Marshes in White Russia. Others have held that the Lausitz folk were directly related to the early Germans. On the other hand, most Czech and Polish writers believe that the culture is pre-Slav, and represents the original homeland of the Slavs, centered in a region now within the limits of Poland.



Fig. 5. Biscupin, Poland. The timber substructures of ramparts, streets, and houses, as remarkably preserved during their long immersion in water. At the left is the breakwater; in the center is the box-like rampart; beyond are a log street and excavated house and hearths. (I. R. S. A. photo)



Fig. 6. Biscupin, Poland. Another view of the rampart and breakwater as revealed by the excavations. (H. G. Richards photo)



Fig. 7. Biscupin, Poland. This view shows the height of the fill, i.e., the level to which the terrain had risen over the foundations. Nearer the camera are sections of rampart and a road. (H. G. Richards)

Some writers have pointed out an apparent break in the record between the time of the downfall of the Lausitz culture and that of the beginning of the historical record in Poland (about A.D. 900). However, the writings of KOSTRZEWSKI and SULIMIRSKI have shown the close similarity between the architecture of the huts of Biscupin and those of the Middle Ages in Poland. In fact, some of the houses of present-day Biscupin are remarkably similar to those found in the excavations. Consequently, a strong argument is given to show that the Lausitz culture is the direct precursor of the Slavs in Central and Eastern Europe.



Fig. 8. Biscupin, Poland. Excavation work in progress in a section of the village along the shore of the Lake of Biscupin. (H. G. Richards photo)



Fig. 9. Biscupin, Poland. The excavations are now being carried out by a large staff under the direction of Dr. Z. Rajewski. Here are women workers loading a decauville car with discarded earth; in the background are further ruins. (H. G. Richards photo)

Various lines of evidence, archaeological, historical, and linguistic, have been gathered to show that the ancestral home of the Slavs lay in the region between the Oder and Vistula rivers. These have been fully discussed in various recently published articles and books. See especially the writings of LEHR-SPAWINSKI (1946, 1947) and SULIMIRSKI (1945-1948), as well as numerous articles in Polish cited in their bibliographies.

Whatever the origin of the Lausitz folk, it is believed that at the time of the habitation of Biscupin,



Fig. 10. Biscupin, Poland. Every bit of soil from the excavations is examined carefully for archaeological specimens. The layer of sand and mud deposited by the rising lake has prescribed a large number of tools, ornaments, and weapons, while even a few pieces of furniture such as the lower part of a plank bed were discovered. (H. G. Richards photo)



Fig. 11. Biscupin, Poland. In the excavation of one house were found the skeletons of two dogs. The remarkable prevalence of bones of domestic animals among those found in the settlement shows the importance of cattle and dogs in the life of the community. (Courtesy I. R. S. A.)



Fig. 12. Biscupin, Poland. Earthenware table vessels excavated from the village site, as reconstructed. (Courtesy I. R. S. A.)

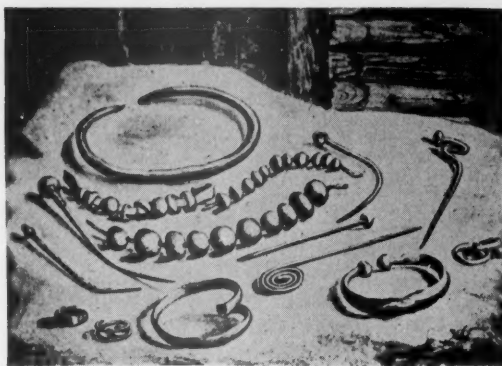


Fig. 13. Biscupin, Poland. Ornaments from the excavations as displayed in the small field museum at the site. (Courtesy I. R. S. A.)



Fig. 14. Biscupin, Poland. Headquarters of the expedition, operated by the Institute for Researches on Slavic Antiquities of the University of Poznan.

the region was being invaded, possibly by people of ancient Baltic stock, or possibly by the Scyths from the southeast (near the Black Sea), and that the fortifications built in front of the village were for protection against these invaders.

Simultaneous with the threatened invasion, the inhabitants were faced with a new danger. For some reason at present not entirely understood, the lake began to rise and eventually flooded the village, driving the people away. This event is interpreted from the breakwaters in the excavation and from other evidence showing that the village was flooded.

Publication of another report on Biscupin (in Polish with French summary) is promised this year by the University of Poznan.

TABLE TOP ARCHAEOLOGY

By Jesse D. Jennings

Jesse D. Jennings, a native of Oklahoma City, is a graduate of Montezuma College (A.B., 1929) and the University of Chicago (Ph.D., 1943). Before the war and after, he was employed as archaeologist in the National Park Service; during the war he served in naval aviation, with the rank of lieutenant. At present he is professor of anthropology at the University of Utah and curator of the museum, and editor of several publications, including American Antiquity, the admirable quarterly of the Society for American Archaeology.

EVIDENTLY MOST TEACHERS OF ARCHAEOLOGY are forced, at one time or another, to solve the problem of indoctrinating or teaching novices some basic archaeological techniques and attitudes prior to the first field work. There have been several attempts to set up laboratory situations where some pre-season instruction can be given. Despite experimental efforts it remains a fact that most professional archaeologists have received their instruction in field techniques in the field at the cost either of lost data or a greatly decelerated excavation research program; in many cases costly losses have resulted from the joint operation of instruction and research activity.

Here I wish to report an experiment in teaching archaeological field techniques. This experiment I have already described in longer form in the *Plains Archeological Conference News Letter*, Volume 2, Nos. 3 and 4. In the *News Letter* statements I criticized common laboratory exercises in archaeological techniques as representing an activity which is essentially out of context. The use of miniature sites was the alternative which I devised in an attempt to mitigate the entirely artificial setting of indoor training. The miniature site alone can provide the full range of day to day field problems. Simultaneously, because of its small size, it provides a means of learning certain delicate manual skills required in some phases of archaeological work.

The experiment was conducted at the University of Utah during the months of January, February, and March of 1949 in our archaeological methods and techniques course. The class consisted of twelve graduate and undergraduate students. None of them had had field experience. To set up the exercise, four culturally accurate sites were constructed, each of which contained most of the major problems which the field archaeologist meets. At each of the little sites, there were two cultures represented. Culturally they ran as follows: At the first, a small Adena Mound was erected upon an Indian Knoll shell mound; at the second, a five stage Middle Mississippi mound was

built upon a Tchefuncte shell heap; the third site contained a thin prepottery deposit upon which a replica of the Wright Mound in Kentucky was built. Into the Wright Mound some generalized Woodland and Mississippi burials were intruded (these latter can be identified by pottery grave offerings which were modelled from illustrations in MARTIN, QUIMBY AND COLLIER).

The fourth and last site was chronologically and culturally impossible but provided experience. This one contained an Upper Republican house over which a later Mandan house overlaps; then upon the Plains village thus created a Marksville mound was built. Into the Marksville mound a couple of Mississippi burials intruded. The internal stratigraphic relationships in the deposits referable to one culture were deliberately rendered somewhat obscure in places, but somewhere in each site the relationship was clear.

Construction of the sites was not difficult. Maps and sections taken from reported sites were the blueprints for construction. Phenomena included in the sites were generalized from actual observations reported in current literature. Of course, we went to some trouble to simulate natural conditions. The soils used varied in both color and texture. Sifted ash, natural brown clay-loam, and yellow sand were used; in the shell heaps quantities of crushed oyster shells were utilized. From a small nail keg, we constructed a mixer very like the old barrel churn, and with our basic dirt (the brown clay-loam) mixed various colors so that yellow clays, dark brown humus stained soils, red clay and rich black midden deposits were easily and more or less realistically simulated as far as color was concerned.

Skeletons were pipe cleaners bent to shape and stiffened in plaster of paris solution (wax figures would have been better). Figurines, pots, axes and celts, and other artifacts were made to scale of modelling clay. Pots and sherds were painted blue or red to allow quick recognition of cultural change or difference, because at the scale used it seemed unnecessary



Fig. 1. Photograph of last construction phase of Middle Mississippi mound. Note nails used as stakes, chopped tree stump in right center, stadia rod, etc. The guard rail at the rear edge of the table shows plainly. The site is numbered according to the common trinomial system in use by Smithsonian Institution salvage archaeological survey units: 42 = Utah, Ex = Experimental County, 2 = second site in Experimental County.

to attempt ceramic verisimilitude in decoration. Bone scrap and tiny flint chips were used to represent their full-sized counterparts. Soils were kept quite moist and plastic during construction so that post holes, fireplaces and other features would not crumble after being modelled. In each site there were intrusions and inclusions; there were recent surface disturbances; there were tree roots; there were deliberate and incidental structural accretions. The sites were more or less realistic in that log tombs, midden areas, skeletons, tiny pots, broken pottery, etc., were all simulated. All the material is to the scale one half inch equals one foot.

The sites were constructed upon individual tables. Each measured 33 by 30 inches, or to scale, 66 by 60 feet. After the site was constructed, the entire site was sprayed several times with shellac so as to seal the surface and prevent the escape of the moisture in the soils. This did not succeed. The earth became quite hard despite our precautions; this development proved useful because the hard soil merely became another

field problem requiring solution. Over the sealed surface of the site, green sawdust, chips, and bits of sponge were spread, and an occasional sponge tree was set upon the tree trunks which we had built into the sites. The effect was not necessarily naturalistic but was sufficiently realistic to make it necessary to clear the sites before adequate mapping controls could be set up.

The material and equipment used in construction included the following items:

Dry ground colors, 2# each: Carbon Black, Red Ochre, Yellow Ochre, Siena, Burnt Umber

Diamond Dye: Green, medium or dark, 2 pkgs.; Green, light, 2 pkgs.

2# of poorest quality sponge—natural or synthetic (or sponge scraps)

100 pipe cleaners

1/3-1 oz. tubes oil paint: Vermilion, zinc white, cobalt blue

1 qt. white enamel (for tables and guard rails enclosing earth)

Shellac and denatured alcohol

2 bbls. soils

Turpentine

2 tubs sand

1 bucket gravel

1 qt. flint scraps

1 bucket sifted wood ash

1 pk. sawdust

Grass

Twigs

Straw

2 quarts bone scraps



Fig. 2. Next to last construction stage of site 42Ex2. Here burned earth, ashes, and charred twigs simulate a partially burned wooden structure.

Bark
Tubs
Pottery (miniature pots & sherds made from modelling clay)
Artifacts (made from modelling clay)
Cartons
Churn (from nail keg)
Tables
Tar paper (to protect table tops)
Spray gun
Spoons
Cement float
Pans of various sizes and depths
Knives
Trowels
Bunsen Burner

A total of only seventy man hours was spent in preparation for the project. After materials were gathered, soils mixed, tables prepared, etc., which took fifty-six hours, construction took only about twenty-four man hours. These are gratifyingly low time/labor cost figures.

STUDENT REACTION was excellent and strong; the simulation of field work was recognized as a highly practical activity. The class was divided into three-man teams. The students of each team themselves selected the first supervisor, who transferred his responsibility to another team member every two weeks; thus each student in turn shared supervisory responsibility for photography, mapping, and notation. Finally, a report, written as if for publication, was prepared from the excavation notes. A comparative section was based upon *Indians Before Columbus*, by MARTIN, QUIMBY AND COLLIER. The report was also a team effort. In the future a full report by each class member will be required.

My own reaction during the course was that the exercise improved upon much indoor instruction in the techniques of archaeology. It is easy enough for the instructor to throw slides upon the screen and talk glibly of undercutting, peeling, stripping, intrusion, extrusion, slicing and all such pseudo-technical terms, but to the student who lacks experience with soils, or

who has never seen or participated in field work, such class sessions verge upon the meaningless.

It seems more valuable to demonstrate principles by lecture and slides, after which the students move directly to personal wrestling with all field problems in full context even though it be in miniature. The thought back of this method of instruction is that in each class period the student will be making field decisions as to his handling of a specific problem in excavation or recordation procedures. He will, as in



Fig. 3. Here, at an early stage of excavation of a shell heap (42Ex4), can be seen both horizontal and vertical approaches to the excavation of the site. The team finally decided to excavate by vertical cutting, since the erratic distribution of shell midden lenses made control very difficult. By means of vertical cuts, combined with horizontal peeling of strata, excellent segregation of materials was achieved.

the field, be forced to study his site, establish mapping controls, clear the site, decide how it should be worked, and then keep the full record. It is my present opinion that a period of adequate lecture coverage, followed by a session with these miniature digs, would probably give, in experience, the equivalent of one summer's field work.

As far as training goes, there are several extra dividends accruing beyond the experience in field problems. Periodic "visits" to adjacent digs allow each student to appreciate the difference in appearance and content of other cultural complexes as seen in the ground—rather than in print. An extended appreciation of published research based upon excavation is thus obtained. An additional advantage lies in the fact that the student can destroy a miniature site with-



Fig. 4. View of the excavation of site 42Ex4.

out ruining irreplaceable aboriginal evidence; that is, he gets his training at the expense of an artificial Indian site rather than one from which we hope new research data are being abstracted. The inevitable mistakes of beginners here do no harm. Finally, in repetition, it succeeds in giving the students an irreplaceable experience in the problems of observation and in adequately recording what is seen.

The entire course unavoidably reflects my position that once one has mastered a few simple techniques and a respect for details, archaeological field work becomes a *mélange* of caution, common sense, experienced sensitivity to soils, controlled curiosity, and a set of intangible but important attitudes. Moreover, it is desirable to convince novices in advance that archaeological field work is frequently a taxing and exacting way to spend the summer.

Of course, the test of the course comes in the field. Did the indoor trainees do better work than the inexperienced students? The 1949 summer field school provided an excellent opportunity for observing the results of the pilot course of indoor instruction. Of the nine students who went into the field, five were members of the group who had taken the indoor class; four not indoctrinated were the controls. The table

top course graduates were initially much more alert to the problems of beginning work and why the preliminary operations were undertaken. In addition to this basic comprehension, they were able to go immediately to work observing all the necessary precautions in the preliminary excavation operations. By this I mean that the trained group automatically understood and used (1) the principles of stratigraphy, (2) the significance of soil colors and texture, (3) the importance of accurate location data, (4) the constant concern with relationships, and other important items. The table top experience in taking notes made all the students much more aware that all phenomena must be observed and recorded; no instances of excited gouging to "see what was there" ahead of the recorder occurred.

From the beginning there was also a vigorous attempt on the part of the experienced students to correlate the phenomena in various portions of the site. In other words, there was an effort to "understand" the site. I noted that the graduates did a great deal of teaching and explaining the early weeks of the dig; this was made possible by quietly teaming the untrained students, who were not quite as much "at home" in the site, with those who had had previous training. Generally speaking, the experienced students seemed to be more cautious and more patient. The above comments do not, by any means, imply that the untrained "control" students were completely inept. On the contrary, the entire group appeared to make good progress in learning and using field techniques.

In summary, it was clear that the table top graduates possessed an enormous advantage over the control group at the beginning of the session; and even at the end of the excavation period appeared to retain a slight edge. The advantage which the graduates possessed lay not necessarily in the matter of manual dexterity in the field, so much as in their understanding of the various phenomena and in their possession of that intangible set of attitudes which seem to characterize the competent field archaeologist.



ARCHAEOLOGICAL POSTAGE STAMPS FROM LATIN AMERICA

MEXICO: 2 cts., the serpent columns of Chichen Itza, cultural center of the Yucatan Mayan empire. The columns, built by the Late Mayans, show Toltec influences. 40 cts., the calendar stone of Ti-zoc, an Aztec work. 50 cts., part of the ruins of the temple of Mitla at Oaxaca. Built by the culturally advanced Zapotecan Indians, the temple shows the effects of interaction with Late Maya. 40 cts., this airmail stamp shows a representation of the Aztec Bird Man (*El Hombre Pajaro*).

GUATEMALA: 1/2 ct., a Mayan calendar in the Guatemalan Archaeological Museum. 1/2 ct., a typical Mayan vase, with incised design, in the same museum. 1 ct., an altar carved by the Mayans, now standing in one of the Guatemala City parks. The surcharge in the upper corner is the Quetzal-coatl, national bird of Guatemala. 3 cts., a monolith erected at Quirigua to mark the passage of a *katun* (20-year period) of the Mayan calendar. 30 cts., another Mayan altar, in the Archaeological Museum.

EL SALVADOR: 30 cts., a typical Mayan pyramid, showing the favored stepped construction of cut stone. The pyramid served as the substructure of an altar which was erected on its upper terrace. BRITISH HONDURAS: 1 ct., a figurine from the Classical Mayan period. This Crown Colony includes part of the area that witnessed the peak of Classical Mayan culture. COLOMBIA: A monolith that antedates the arrival of Columbus in the New World appears on both the 5 ct. and 30 ct. values.

PERU: 4 cts., a Chavin stirrup jar. This complex pottery shape is typical of most stages of the advanced pre-Incan culture. 15 cts., the Lima Archaeological Museum, framed by artifacts from several Peruvian cultures. 2 soles, a Chavin stela, c. first century A.D., showing the high level of artistic skill characteristic of this mountain culture. 5 soles, a symbolic sculptured puma from one of the numerous Chavin temples in northern Peru.

—JACK IRWIN APPEL

Thomas Whittemore, 1871-1950

A GREAT PUBLIC BENEFactor HAS DIED after a memorable career. His astonishingly brilliant work of eighteen years at Santa Sophia, unfortunately, is left unfinished.

THOMAS WHITTEMORE had the personality and force to gain the confidence of the famous KEMAL ATATURK who made over the Turkish nation after World War No. I. President KEMAL conferred on him, a foreigner, the unusual favor of granting him permission to take charge of the restoration of Santa Sophia in Constantinople—one of the world's greatest monuments.

It was remarkable enough that WHITTEMORE achieved the incredible in gaining the permission to do this work, but his accomplishment of the work was more astonishing still.

THOMAS WHITTEMORE, son of JOSEPH and ELIZABETH ST. CLAIR WHITTEMORE, was born in Cambridge, and graduated from Tufts College in 1894.

In 1914 and 1915, he served in the French Red Cross. In 1916 he organized in Boston a committee for the relief of Russian orphans and after 1917 continued this work for the benefit of the White Russian youth in exile. He went to Russia on behalf of this charity, which he carried on for many years there and in Europe.

For some time he had studied early Christian art. He had experience in Egyptian archaeology as the American representative of the Exploration Fund in London. In 1930-32, he studied and copied thirteenth century frescoes in two Coptic monasteries near the Red Sea.

Meanwhile, he returned to his early Byzantine studies. This brought him to Istanbul, where in 1931, as I have said, he won the confidence of President KEMAL of the Turkish Government. For the last eighteen years, WHITTEMORE came to America and spent the winter months in raising funds sufficient for the next year's task of removing the work of the FOSSATI, natives of Italian Switzerland. The Mohammedans, after the conquest of Byzantium in 1453, covered the original mosaics with plaster and paint. In the nineteenth century, these additions had deteriorated. The FOSSATI had been em-

ployed by the Turks in the years 1847 to 1849 to renovate the ancient church, then a mosque. Before re-covering the mosaics, in cleaning off the old coating, the FOSSATI had the opportunity of seeing the original mosaics and making drawings of them. In some cases, they merely painted decorative designs over the original mosaics; and in other cases, they put a coat of plaster on and painted the plaster. Those who have seen the mosaics which THOMAS WHITTEMORE uncovered believe them to be the greatest in the world. He had published three scholarly preliminary reports on his achievements at Haghia Sophia with remarkably good illustrations, and the fourth one is in the press.

I quote from the preface in his recently published album, *Mosaics of Haghia Sophia at Istanbul—The Byzantine Institute*, which consists of a short preface and some singularly fine photographs of these ancient mosaics:

"The Church was built between the years 532 and 537 by Justinian the First and dedicated to the worship of the Divine Wisdom. It is the culmination of religious expression in architecture of Eastern Christendom. With the conquest of the city by the Turks in 1453 the Church was turned to the uses of the religion of Islam. In 1935 it was declared a Museum."

The mosaics which WHITTEMORE uncovered represent "the art of almost a millennium of Byzantine mosaics, ranging from the VIth Century to the XIVth."

WHITTEMORE created the Byzantine Institute of which he was the Director, and it was in this capacity that he carried on his work.

The group of skilled workmen under his direction not only uncovered these mosaics which were still in situ, but made solid some sections which had been cracked and loosened by earthquakes. The Italian restorers of mosaics in general supplied new tesserae to replace missing parts, and flattened out the old and the new together, which tended to deaden the vivacity and sparkle given by the slight intended unevenness

of the work of the original masters. Not so in the work superintended by WHITTEMORE. He did not allow any new tesserae to be mixed with the old ones but left what remained in its original condition, thus preserving the life which the old masters had created.

His workmen not only preserved the original mosaics but made careful rubbings which are now stored in this country. In several cases, coloured life-sized copies have been made which are to be seen in various American museums.

The four copies which seem to me to be the most living of all were made in the years 1938 and 1939 by Professor GEORGE HOLT of Bennington, who was then working at the Fogg Museum. This work of HOLT's was interrupted by the war and has never been resumed.

Professor HOLT devised a method of making plaster casts of the original mosaics in small sections one by one, and then imitating the gold, glass and marble of the originals by gold leaf, transparent paint and opaque paint. Then the sections were fastened together to make a notable unit. The two larger copies of this sort are in the Metropolitan Museum, the two smaller ones in the Fogg Museum of Art. In 1948 and 1949 successful copies were also made on tracing cloth by a skillful English artist, Mr. WALTER HOYLE.

The uncovering of these wonders of mediaeval religious workmanship is ranked as an archaeological triumph of first importance.

ROYALL TYLER in 1937 in an article on Santa Sophia, speaking of the mosaics, said, "... the quality of the post-iconoclastic mosaics, of which the great church contains a long series: (is) a revelation of immense importance for the understanding of Byzantine art, lovers of which have every reason to pray that Whittemore's work may continue until the task of cleaning and consolidation is completed."

WHITTEMORE's prestige was so great that the Turkish Government asked him to restore and save from destruction some of the other early important churches in Istanbul, notably the Church of the Chora and Theotokos Pammakaris-tos.

This work WHITTEMORE did with skill and energy to the extent that the limited American funds at his command would allow. Had our

American public awakened to the importance of this work of the tireless WHITTEMORE who had to spend the time in America in raising money which he ought to have spent in rest and study, he might have lived longer to finish his task.

He was called to come to Jerusalem to help in the preservation of some revered monuments there.

WHITTEMORE was so much valued by the Turkish Government that during World War No. II he was given so high a priority that he frequently flew back and forth by military airplane between Turkey, other countries, and the United States. Some of his friends wondered whether he was being sent on important diplomatic missions, but no hint of such a thing came from his words or his face.

In those days he seemed a man of mystery. I often thought of the words of COLERIDGE in the *Ancient Mariner*—"I pass like night from land to land—I have strange powers of speech."

He was a brilliant talker and fascinated his hearers with his dramatic eloquence and unusual charm. He gave admirable lectures on Santa Sophia, illustrated with slides, to many audiences far and wide in our country.

In Boston he also gave the Lowell Institute lectures on this subject some years ago. They were so popular that he always had a good audience.

As an example of the widespread number of his admirers, at the same time that his funeral service was being conducted in Cambridge, there was arranged a service in his memory in the Orthodox Church in Paris where those who mourned could pay their respects to his memory.

WHITTEMORE, as Director of the Byzantine Institute, created in Paris a library of about twelve thousand volumes in that field with the help of his able librarian, M. BORIS ERMOLOFF. Its importance was well known to scholars who, when in Paris, never failed to visit it and often worked there.

When World War No. II came—as there was thought to be a danger of the Germans bombing Paris—the library was removed to a chateau of a friend in the country. Later—after the occupation of Paris by the Germans—it was deemed wise to return the books to Paris and reopen

the library for public use. M. ERMOLOFF managed to conceal successfully the really valuable ones and put the more ordinary textbooks on the shelves. In the winter of 1943, the Germans notified him that they had decided to confiscate the library as alien property, but were persuaded to postpone the completion of their plans until 1944, when they had more vital matters to think of, and the confiscation order was never executed.

WHITTEMORE also made a very fine collection of gold, silver, and bronze Byzantine coins and lead seals. These he deposited in the Fogg Museum of Art, where they are being catalogued by Mr. ROLAND GRAY.

For years WHITTEMORE has had the Harvard title of Fellow for Research in Byzantine Art.

He has received recognition from many quarters. He was a fellow of the Royal Geographic Society and the Society of Antiquaries in London, a member, and at the time of his death the First Vice-President, of the ARCHAEOLOGICAL INSTITUTE OF AMERICA. He also held memberships in the American Numismatic Society, and the recently formed American Research Center in Egypt. He was an Officier of the Legion d'Honneur de France, and was decorated by many other foreign countries, including Rumania, Bulgaria, and Greece. Recently he received an honorary Doctor's degree from Brown University and on Sunday, June 11, posthumously, the

degree of Doctor of Literature from Tufts College.

THOMAS WHITTEMORE had intuition and knowledge which cannot always be obtained by learning. This rare inspiration gave a high value to his scientific publications. His fabulous success was due not only to his intelligence, his insight, and his indomitable energy but also to the small group of donors who, attracted by his magnetic charm, believed in him. Also it was due to his good judgment in selecting such able assistants as M. BORIS ERMOLOFF who helped him develop the library, and Mr. SETH GANO who was the mainstay of the Institute and worked in the office while the Director found the money in America and employed it with marked success in Istanbul.

WHITTEMORE was unique, forceful, courageous, intelligent, sensitive, keen, eager, self-controlled, abstemious, and high-minded. These and many more adjectives are needed to describe the numerous facets of this diamond-like character.

So at the age of seventy-nine this brilliant, remarkable, lovable man has died while he was still actively engaged in raising money for his 1950 season's work in Istanbul.

He was deeply religious, and he did his great and noble work in the service of God.

—EDWARD W. FORBES

THE COVER: The photograph reproduced on the cover of this issue is of surviving columns and architraves of the Olympieion, the temple of Olympian Zeus in the lower city of Athens. It was taken in the winter of 1926-27 by A. HYATT MAYOR, who was then a member of the American School of Classical Studies at Athens, and is now curator of prints at the Metropolitan Museum of Art.

THE NEWPORT TOWER: AN ANSWER TO MR. GODFREY

PROFESSOR PHILIP AINSWORTH MEANS in *Newport Tower*, 1942, presented "A Plea for Scientific Excavation." He awakened hope that archaeological digging near the round stone tower in Newport would produce evidence to answer the question as to the tower's origin. Many of us ignorantly joined the chorus of demand for such excavation. By the time arrangements were made for scientific excavation, interested persons had apparently lost sight of the fact that Professor MEANS had proposed "radial trenches" outside of the tower "from each of the eight columns for a distance of ten to twenty-five feet," to look for possible foundations for an ambulatory. It is doubtful whether he would have conceded any value in digging within or beneath the tower; for he knew that exploratory digging had already been done in that area (since he was familiar with BENSON J. LOSSING's report though he did not quote from it, so that the readers of his book did not know what that report contained.)

However, digging within or beneath the tower was ordered, and Mr. WILLIAM S. GODFREY was engaged to do it for two succeeding summers. Mr. GODFREY's report on the results of his 1949 excavations was published in *ARCHAEOLOGY*, Volume 3, No. 2 (Summer, 1950). Mr. GODFREY's report states his conclusion before it presents any evidence. It begins with this sensational announcement: "Another season is now past and we can without fear or contradiction state that we know when the Old Stone Mill was built." These are intrepid words.

Mr. GODFREY tells us that "in the season of 1949 it was decided, by the City Fathers of Newport, that our excavations would be confined to the area within the protective iron fence which now surrounds the Tower." Mr. GODFREY found "the exact limits of the trench which was excavated to receive the foundations of the Tower," and he says he and his helpers were subsequently "able to eliminate from our excavation any material which did not derive directly from this fill. . . . Few stray objects turned up which could be stated without question to have arrived in the fill at the time the Tower was a-building. However, . . . finds were made which permit the absolute dating of the fill." He found (in the area of the refill in the original construction trench) a piece of glazed pottery believed to be datable as of about the middle of the seventeenth century. He says of this: "It confirmed to the hilt our finds of Colonial levels passing under the columns."

Let us see what Mr. GODFREY means by the word "under." Prohibited by engineering caution from exposing any large area of the foundation of a column, Mr. GODFREY dug, close to such a foundation, a vertical "slot"

eighteen inches deep and barely wide enough to admit his arm. When his hand went down into that slot, his fingers reached laterally only two or three inches, certainly not to under the middle of a stone column over three feet in diameter. He extracted "a small fragment of a clay pipe" which he says was "well under (one might almost say inside of) column 3." Mr. GODFREY uses the word "under" to mean under but very near the edge of a piece of rubble work of the foundation of a column, or at the base of that foundation. Quite patently, an object said to be "under" the column in this sense of the word, could have been deposited with refill that was carefully packed into the interstices of the rubble work or tamped in literally beneath the edge of the bottom stone of the foundation.

Mr. GODFREY says that the objects he found "arrived in the fill at the time the Tower was a-building." But grave doubt is cast upon his conclusion that there were "Colonial levels passing under the columns," by the fact that over 100 years ago there was an exploratory excavation to below the base of the foundation of at least one of the columns, with the refill of which, the objects Mr. GODFREY found may have been deposited. The distinguished historian, BENSON JOHN LOSSING (in *Pictorial Field Book of the Revolution*, 1851, Vol. II, pages 64-66), visiting Newport in October, 1848, spent several hours with ex-Governor WILLIAM C. GIBBS, the then owner of the round stone tower. Mr. LOSSING wrote: "Governor Gibbs informed me that, on excavating at the base of one of the pillars, he found the soil about four feet deep, lying upon a stratum of hard rock, and that the foundation of the column, which rested upon this rock, was composed of rough-hewn spheres of stone, the lower ones about four feet in circumference." Here was an excavation to the bottom and below the base of one of the columns. We do not know which column it was, but the chances are better than one in eight that it was one of the columns at the foundation of which Mr. GODFREY dug. There may have been, and probably have been, similar excavations at various times at the bases of several or all of the columns. Much of the ground beneath the tower has been dug and redug. There is a story of treasure hunters. Professor MEANS (page 83) says of Governor GIBBS: "It must have been he who drove off the alleged excavators mentioned in the Controversy letters printed by Brooks."

As for the heel impression (the shape and size of a boot or shoe heel but without any identifying detail) which Mr. GODFREY's assistant found at the bottom of the construction trench, that is not necessarily Colonial. It may have been made by an early nineteenth century boot heel of one of Governor GIBBS's diggers tamping down

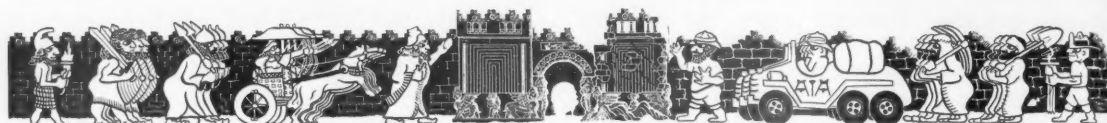
the bottom of the refill. It may have been made by a pre-Columbian heel of a wooden shoe, or the heel of a soldier's high boot. (See *Life and Work of the People of England. A Pictorial Record from Contemporary Sources. The Fourteenth Century*, 1928, by DOROTHY HARTLEY and MARGARET M. ELLIOT. Plate 3b, facing page 9: "Country Folk Going to Market," and Plate 25f showing a soldier's high boots with heels.)

Some of the refill in the construction trench is nineteenth century refill. This fact raises question as to the

infallibility of Mr. GODFREY's conclusion. The establishing of a proof requires that all possible and conceivable alternatives have been explored and eliminated. In the case of the Newport Tower, we have an alternative possibility that invalidates the certainty with which Mr. GODFREY asserts that he has found incontrovertible proof that the Newport round stone tower was built after the settlement of Newport by British colonists.

—FREDERICK J. POHL

Boys High School, Brooklyn



ARCHAEOLOGICAL NEWS

Edward Capps, 1866-1950

EDWARD CAPPS, noted classicist, retired Princeton professor, and organizer and administrator of such intellectual projects as Athens College and the American Association of University Professors, died in Princeton on August 21, 1950. Of his many public services, it is likely that posterity will remember him best for his long chairmanship (1918-38) of the Managing Committee of the American School of Classical Studies at Athens, when he obtained for the school from the Greek government the concession for the Agora excavation, raised the funds for it, and saw it safely launched.

Samothrace

In the 1950 excavation in Samothrace, directed by KARL LEHMANN of New York University's Institute of Fine Arts Archaeological Research Fund, a welcome addition to a famous work of art was discovered: part of the right hand of the Winged Victory of Samothrace.

Furthermore, fragments from the earlier Austrian excavations in Samothrace, now in Vienna, are found to include two marble fingers, or, rather, the thumb and the ring finger, which form positive joins with the hand. Dr. LEHMANN also identified additional fragments of the prow of the stone ship on which the figure stood; was able to reconstruct with increasing precision the architectural frame within which

the figure was displayed; and obtained, from pottery fragments in the fill of the foundations, a new date for the dedication: the decade around 200 B.C. Detailed exposition of the evidence is to be presented later.

Used Clothing

The American School at Athens has received, and distributed to its employees, four large crates of used clothing contributed by friends of the School. The need for such gifts continues. Those who wish to participate may send packages, containing used clothing only, plainly marked "For the American School of Classical Studies at Athens," to the Near East Foundation, 54 East 64th Street, New York 21, N. Y. The Foundation will repack and forward the bundles.

Roman Summer

The summer session of the American Academy in Rome was again directed by HENRY T. ROWELL of The Johns Hopkins University, whose leave from Baltimore this semester to serve as Visiting Professor at Harvard has caused a flood of speculation. Of the students admitted, seventeen attended and fifteen completed the six-week (July 10-August 17) course. Two regional Classical associations, New England and Atlantic States, and two state societies, Ohio and New Jersey, are now providing scholarships to these sessions. The program was divided be-

tween monuments, museums, lectures, and excursions. In addition to excursions to Veii, Monte Albano, Hadrian's Villa, Horace's Sabine Farm, and Ostia, the members had the special privilege of visiting the ancient cemetery under St. Peter, which has not yet been opened to the public, and the Cinecittà studios to see the sets of the M.G.M. production of "Quo Vadis."

A.A.A.S.

The annual meeting of the American Association for the Advancement of Science will be held in Cleveland, Ohio, from December 26 to 30, 1950.

A.A.A.

The annual meeting of the American Anthropological Association will be held at the University of California, Berkeley, California, from December 28 to 30, 1950.

Nomenclature

The Society for American Archaeology has had a 27-member committee at work investigating the spelling of the word which *inter alia* is the title of this magazine. We are happy to learn that at the fifteenth annual meeting of the Society, held in May at Norman, Oklahoma, this committee reported a preference for 'archaeology' over 'archeology,' and that this recommendation was accepted and is now the official policy of the Society. Now to find some means of interdicting the pronunciation of the

Sudan Government Antiquities Service
P.O. Box 178
Khartoum

7th June 1950

The Editor, ARCHAEOLOGY,
Sir,

I was very interested to read Mr. Dows Dunham's note on the policies of the Egyptian and Sudan Governments with regard to excavation, in your March number.

As Mr. Dunham points out the Sudan's policy has been more generous to excavators than that of some other countries of the Near East and it has been the practice to allow the excavator a half share of his finds. There is at present no intention of changing this policy.

Mr. Dunham rightly complains of fluctuation in the policy of issue of licences to excavate. This has arisen through the difficulties inherent in trying to strike a balance between encouraging research and excavations, and avoiding taking on responsibilities for conservation which were beyond the capacity of the Government. It should be borne in mind that it was only in 1946 that the first full time archaeologist was appointed in the Sudan.

Although a proper Museum still does not exist, the appointment and training of Sudanese officials now makes it possible for a far higher standard of conservation to be carried out and enables a more liberal attitude to be taken to requests for permission to excavate.

Though permission to excavate sites thought likely to produce large museum objects will continue to be given sparingly it is now the intention to encourage other kinds of research as much as possible. There are many periods of Sudanese history waiting to be studied, to which small carefully controlled excavations could add much. I should also like to make the point that there is far more to field archaeology than excavations.

One of the greatest desiderata in the Sudan is a series of field surveys. There are enormous areas of this country (which is about a million square miles in extent) which have never been examined archaeologically, and even in those areas comparatively well known there are many classes of antiquities awaiting proper investigations. Amongst these there are two of particular importance; the gubbas (or tombs) of the holy men of Islam of which hundreds are to be seen in the Northern Sudan, and the forts built by the Shaigia in the 18th century, many of them on the site of much earlier forts, probably of the Christian period.

There are two fascinating subjects of study, and there are many others. Can we not persuade some of the younger field workers to come to the Sudan?

I can assure any archaeologist coming here that he will get nothing but help and encouragement from the authorities.

Yours faithfully,

P. L. Shinnie

Commissioner for Archaeology

first two syllables as 'archie.' Incidentally, who was it who received a letter addressed, apparently in all good faith, to him as an officer of the R. K. O. Logical Society?

Siriono

ALLAN R. HOLMBERG, Smithsonian Institute anthropologist, spent nearly a year with the Siriono, an Indian tribe living in the swampy forests of Bolivia. He found them living in so primitive a fashion as to suggest close analogies

with the way of life of the Old Stone Age. A Smithsonian bulletin published in June gives an account of their civilization, or lack thereof. Highlights include the following:

Few of the forest Siriono ever have come in contact with whites, and they have adopted none of the ways of white civilization. They have never worn clothes, other than for occasional decorative purposes, although they wander through the country so beset with insects that life becomes well-nigh unen-

durable. Their only weapons are bows and arrows. Firemaking is a lost art among them, and a burning brand must constantly be preserved by each family.

Food insecurity and hunger frustration are the dominating influences in the life of the Siriono. The food quest in a rigorous environment is fatiguing and painful, and the amount obtained is so inadequate that the Siriono may be said to be always hungry. All individuals that might hamper the tribe in this main objective, food—the aged, the deformed young, or the extremely

ill—are killed, abandoned, or otherwise disposed of.

They live by hunting, extremely primitive agriculture, and some gathering of fruits from the forests. Their shelters are brush lean-tos.

The Siriono have no domesticated animals. Even the dog, almost universal around Indian camps, is unknown to the swamp wanderers. . . . Naturally, the Siriono are skillful hunters. They are masters of both stalking and imitation and can imitate to perfection the whistle of a bird or the call of a peccary. In fact, there is not an animal sound of the forest that they do not know and cannot reproduce. Upon this skill living often depends, for their bows are of a quite primitive type.

Rivers and lakes are numerous in their territory, which covers about 200 square miles, but all movement and transportation take place on foot overland. There is plenty of material for the building of canoes. Any sort of watercraft would be very advantageous, but the Sirionos apparently never have reached this stage of culture. Trails through the forest never are cleared and are very poorly marked.

Art has remained at a backward level. Beyond the stringing of necklaces, the designless painting of the body, and the decoration of the hair with feathers, no attempt is made to embellish anything. No type of musical instrument is known, although singing plays an important part in the culture.

. . . almost without a folklore or mythology, such as is found among nearly all other primitive people. There is no curiosity about the supernatural, or about the origin of things. The one culture hero is Yasi, the moon, who was once a great chief on earth at a time when there was nothing but water and a race of wicked people. Moon slew these evil creatures and created man and the animals. He plays a part in the explanation, when there is any, of most natural phenomena.

The Siriono are unable to count beyond three. No records of time are kept and no type of calendar exists. The year with its division into months, or "moons," is quite unknown. The people have names only for yesterday and tomorrow. Any future time is referred to merely as "brother of tomorrow," any past time as "brother of yesterday." Time is indicated only by the position of the sun in the sky.

Yazoo Exploration

A joint expedition of the American Museum of Natural History, New

York, and the Peabody Museum, Harvard University, with JAMES A. FORD and PHILIP PHILLIPS as co-directors, is to excavate a site or sites on the Lower Yazoo river in Mississippi from February 1 to about May 1, 1951.

Kensington Runes

The Kensington Stone is a stela found, or said to have been found, in 1898 on a farm in Douglas County in west central Minnesota. It bears a twelve-line inscription in runes purporting to record a disaster which befell eight Götlanders and twenty-two Norwegians on an exploration journey, and contains the date 1362. Although there are circumstantial presumptions in its favor—it was found face down in the ground, about six inches below the surface, with a good-sized tree growing above it—it was promptly declared a forgery by Scandinavian scholars, and it has taken a half-century of sweet reasonableness to win even a fair hearing for it.

The latest shaft has been launched by S. N. HAGEN of Franklin and Marshall College, who in a delightfully witty article entitled 'The Kensington Runic Inscription' in the July, 1950, number of *Speculum* (25.321-356), has analysed the script and language of the inscription and effectively demolished the objections based upon linguistic considerations.

Professor HAGEN favors, incidentally, the view which would have the explorers sail via Hudson Bay to the mouth of the Nelson River, up the Nelson to Lake Winnipeg, south across the lake to the estuary of the Red River of the North, and up the Red River to a point opposite Kensington, forty miles away; most earlier scholars, if they accepted the stone as genuine, assumed that the party sailed up the St. Lawrence river and the chain of the Great Lakes to the head of Lake Superior, striking out from there in search of a westward passage.

Schaezel Report

Aided by a grant from the Colt Archaeological Institute, Mr. RICHARD P. SCHAEDEL continued his study of pre-Incaic coastal architecture with the facilities and resources furnished him as director of the Institute of Anthropology of the University of Trujillo.

The study was an architectural survey of some 400 miles of the Peruvian coast, including ten valleys. In the Moche valley, where Trujillo is located, ground plans of the hitherto unknown city of Galimdo were made. The site is some nine kilometers in extent, built of mud brick and stone. It is up-valley from Chan Chan, the Chimú capital, and was built for the most part during the middle Chimú period, prior to the erection of Chan Chan.

Important discoveries of painted murals of the Mochica culture, 500-800 A.D., were made at Pañamarca in the Nepeña valley, 100 miles south. These were friezes, and included a procession of warriors holding hands, a panel of two warriors fighting, and two mythological creatures also known from Mochica pottery. These are the most extensive murals yet discovered in South America, and they give a vivid impression of the vigorous Mochica art style applied to monumental architecture. PEDRO AZABACHE, noted Peruvian mural painter, made life-size reproductions of these murals.

In addition to the low relief friezes discovered on the outside of the temple, Huaca El Dragon, reported in *ARCHAEOLOGY* 2 (1949) 73-75, Mr. SCHAEDEL excavated more interior panels of the temple with similar friezes. In the Lambayeque valley, 200 miles north of Trujillo, another site yielded similar friezes to the expedition, establishing the close connection which some believed to exist between these two shrines.

Still further discoveries of wall decorations were made in the important center of Mojeque, near the temple of that name in the Casma valley, south of Trujillo. These reveal a luxurious urban center of considerable proportions. Preservation of material at this site included the algaroba pillars in the topmost superstructure.

The known site of Purgatorio in the Leche Valley was reconnoitred, and a detailed ground plan was made. Among the larger sites of which plans were made are: Talambo in the Jequetepeque valley, the Mirador group of pyramids in the Lambayeque valley, Moccollope in the Chicama valley, Pampallama in the Casma valley, and Punkuri Alto in the Nepeña valley.

BRIEF NOTICES OF RECENT BOOKS

Early Man in the New World, by KENNETH MACGOWAN. xv, 260 pages, ill., maps, diagrams. Macmillan, New York 1950 \$5.00

This is an excellent presentation of the essential facts of the peopling of the New World from the west. It is a book prepared for the use of the "intelligent layman" by an able and industrious non-professional. The volume has benefited by the suggestions and scrutiny of many of the outstanding authorities on the history of early man in both hemispheres. By this means MACGOWAN has obtained authenticity for his story, but the sprightly tone of the volume is his own. It is written without bias or special pleading, and hence is much sounder than such a recent popular book as *Men Out of Asia*.

Major chapters are devoted to "The Great Ice Age," "Early Man in the New World," "What the Bones Have to Say," "The Artifacts of Early Man," and "Pygmies, Australoids, and Negroids—Before Indians?" There are some eighty maps, charts, and drawings by CAMPBELL GRANT which add greatly to the ease with which this book will be read by non-specialists.

MACGOWAN has included sufficient information on man's beginnings in Eurasia to orient the reader when the time comes to present the cultural evidence for man's occupancy of the Americas and his antiquity in the latter area. He has brief discussions of most of the important finds of artifacts or skeletal material in the Americas and has also included a surprising number of less well known but documented finds. In the chapter "Early Man and the Great Extinction," MACGOWAN has followed those students who have viewed the passing of Pleistocene mammal forms as an almost sudden and simultaneous extinction of various forms. Evidence is steadily accumulating to indicate that different forms such as the elephants and the ground sloth disappeared some thousands of years apart. Recent evidence on early pre-corn and pre-ceramic agriculture in Peru suggests that cotton may not be as independent of an Old World origin as was formerly believed. The "sculptured foot carved from a mammoth's

tooth," illustrated on page 130, is (according to DE TERRA) interpreted by competent paleontologists as a piece of unworn elephant molar. Various other phases of the book might also be subject to comment which would, however, not detract from the initial statement in this review that here is an outstanding, popular presentation of "Early Man in the New World."

JAMES B. GRIFFIN

*Museum of Anthropology
University of Michigan,*

Sybaris, by JOSEPH SEVIER CALLAWAY. ix, 131 pages. The Johns Hopkins Press, Baltimore 1950 (The Johns Hopkins University Studies in Archaeology, No. 37) \$3.00

Sybaris is the city in Magna Graecia whose prosperous inhabitants early gained a reputation for self-indulgence. Greek and Roman authors repeat a score of "Sybarite tales" recalling this alleged trait, including what is possibly the first appearance in literature of the man who was ruptured merely by the sight of farmers digging.

The most astonishing fact about Sybaris for contemporary archaeological audiences is that as of 1950 the site has not been located.

"The precise site of ancient Sybaris is still unknown but archaeological investigation may yet reveal the site and greatly extend our knowledge of the once fabulous city . . . the principal source for our knowledge of the city is still the literature. . . ."

"This little book attempts, by drawing on all known sources, to present a somewhat fuller and more integrated account of the city as a whole than has been heretofore available. . . ."
(author's preface, page vii).

This is a doctoral thesis of a type increasingly familiar, in which an earnest attempt is made to gather together and evaluate all the classical and relevant post-classical references to an ancient city, a sort of Pauly-Wissowa encyclopaedia article, but more glorified, and composed in English. Some have a certain usefulness insofar as they assemble data not otherwise presented in convenient association. Many are vitiated, like the present one, by an omission

which this critic considers fatal, an unarchaeological reluctance to take to the field. Tell me, DR. CALLAWAY, have you ever thought of going yourself to the toe of Italy and looking in person for traces of lost Sybaris?

J. J.

Excavations at Gözlü Kule, Tarsus, edited by HETTY GOLDMAN. Volume 1, The Hellenistic and Roman Periods. With contributions by DOROTHY HANNAH COX, HETTY GOLDMAN, VIRGINIA GRACE, FRANCES FOLLIN JONES, and ANTONY E. RAUBITSCHKE. Text: vii + 420 pages; plates: 276 figures, 9 plans. Princeton University Press, Princeton 1950 \$36.00

The mound, situated in the outskirts of the ancient city of Tarsus was explored in 1935 and 1939 and, in a smaller scale, after the war in 1947-1949. Its excavation has yielded a "preliminary knowledge" of the successive cultures that were developed in the plain of Cilicia from Neolithic times through the Islamic period. In the present volume we have the excellent publication of the material belonging to the Hellenistic and Roman periods in ten different studies written by Miss GOLDMAN, director of the excavations, and her colleagues.

The stratigraphy of the site, its habitation levels, and their chronology are discussed by Miss GOLDMAN in her usual lucid and accurate way. She also discusses the terracotta figurines from the site (pages 297-283) in the same masterful manner. The technical processes involved, the chronology and the style are discussed first and then the examples are grouped by subject matter and are described individually. With FRANCES FOLLIN JONES (pages 84-134) she presents the lamps discovered. These are assembled in twenty-three groups, their stratigraphy is noted, and the subjects decorating the discs of the Roman examples are especially treated.

The coins are brilliantly treated by Miss DOROTHY HANNAH COX (pages 38-83). A total of 345 coins were found at the excavations, of which none belong to Persian times, and only two tetradrachms and thirty-two bronze

pieces to the days of Alexander; the balance date from the reign of Antigonos to the days of Theodosius II (A.D. 408-450). Special attention is given to the autonomous series of coins.

Miss VIRGINIA GRACE, in her usual thorough manner, discusses the stamped amphora handles from the site. Of the 101 examples found, 83 belong to the Rhodian and 3 to Knidian jars, and are of particular interest because of their discovery in carefully recorded and stratified deposits.

The vast amount of pottery found is masterfully discussed by Miss FRANCES FOLLIN JONES (pages 149-296). Since most of it was found in stratified layers, it makes possible the more precise classification of the pottery produced in Hellenistic to Late Roman times. Each class is discussed and described fully, and is illustrated with photographs and drawings.

ANTONY E. RAUBITSCHKE discusses the fifteen inscriptions found in his usual thorough manner (pages 384-386). With the exception of three, the inscriptions are later than A.D. 350.

The discussion of the miscellaneous finds of metal, clay, stone, ivory, bone, and glass is followed by an excellent table of the finds.

It will be difficult, in the small space available for this review, to do justice to this splendid publication. Perhaps it will prove sufficient to state that it is characterized by thoroughness, precision, and lucidity, and that it is a model of scientific presentation. The photographs are excellent and the typography meets the high standards which the Princeton press has developed. Miss GOLDMAN again has won the gratitude of all scholars not only by her successful excavation and her brilliant presentation of its results, but also by her generous attribution of material to scholars whose contributions have helped to make the Tarsus publication a memorable scientific event.

G. E. M.

A Hundred Years of Welsh Archaeology. Centenary Volume, 1846-1946, edited by V. E. NASH-WILLIAMS. 160 pages, 13 plates, 15 figures in text. Printed for the Cambrian Archaeological Association by John Bellows Ltd., Gloucester, n.d. 21s.

This is a special volume published

to commemorate the centenary of the Cambrian Archaeological Association or, more exactly, that of its journal, the *Archaeologia Cambrensis*. Addressed to professional archaeologists and laymen alike, it offers an excellent outline of the present state of Welsh Archaeology from prehistoric to mediaeval times "as illuminated by the work done and discoveries made in Wales during the past century (9)."

In the Introduction (11-23) the late Sir J. E. LLOYD, the distinguished author of *A History of Wales from the Earliest Times to the Edwardian Conquest* (Longmans, Green and Co., London 1937) reviews the work of the Association and the history of its journal. The volume proper begins with a masterly chapter "Prehistoric Period" (24-79), contributed by W. F. GRIMES, who presents the reader with a concise summary of Welsh prehistory "in terms of the successive cultures of which it is composed" (24). Like every summary this, too, has its self-imposed limitations. The author says little of economic and domestic aspects of culture since nothing is known so far of pre-Iron settlement sites which have not been excavated. Though some scholars suggested it, Mr. GRIMES does not subscribe to the view of a "megalithic religion." He regards "the megaliths and the pottery as pointers at once to the oneness and to the diversity of western Neolithic culture" (43).

Of equally high quality is the second chapter, "Roman Period" (80-104), from the pen of H. J. RANDALL. He says little of the excavations of the nineteenth century, and rightly so, and one cannot help agreeing with him that "the history of Roman Wales, so far as it is possible to reconstruct it, has been dug out from the ground" (81). Applying to Wales the division into highland (military region) and lowland (civil region) which was first formulated by HAVERFIELD and amplified by FOX as the foundation of Roman Britain, RANDALL begins with the sites under Roman civil occupation (lowland), stressing the fact that no demarcation in the strict senses between the two regions was drawn, because the province being a unit was governed by one governor. First taken up is *Venta Silurum* (Caerwent), which was "the

result of deliberate planning," and never a military fortress. The remarkable thing about the town with its houses "for the most part of the four-sided court-yard type of Graeco-Roman origin" (83) was that it had no slums. This section contains also pertinent remarks on country houses, lesser civil sites, native settlements and a special section on mining and industry (84-90).

Most interesting is the section dealing with "Military Occupation" (90-104). Since Wales was a part of the Highland zone, its occupation was, strictly speaking, military. The Welsh frontier, however, differed from other frontiers in that it faced no enemy in the West, merely the sea and Ireland. Thus the Welsh frontier is a fine example of "military conservatism and red tape" and of "wasteful expenditure." As originally planned "Roman Wales was over-fortified and over-organized. The commanders were dealing with a unique problem and they failed to recognize the fact" (91).

Of the two fortresses, *Deva* (Chester) and *Isca* (Caerleon), the headquarters of the Twentieth and Second Legions, RANDALL limits himself to the description of Caerleon and then journeys with the reader round the network of auxiliary forts, fortlets and roads which connected and defended Wales.

The third chapter (Early Christian Period, 105-122) consists of two parts. The first, dealing with settlement sites and other remains (105-122), was written by LADY AILEEN FOX; the second, by the well known Celtic archaeologist R. A. S. MACALISTER, discusses the progress made in the study of inscribed and sculptured stones (123-128).

Like the third, the fourth and the last chapter, too (Medieval Period), consists of two sections. The first, by B. H. ST. J. O'NEIL, gives a fine précis of the present state of knowledge of Welsh castles (129-140); the second, by A. J. TAYLOR, offers a brief outline of the excavations done on the greater monastic houses in Wales (140-147), with suggestions for future research, both archaeological and historical. Practically every page in Mr. TAYLOR's article shows the importance of the Cistercians, whose alliance with the

Welsh princes exerted a profound influence on Welsh institutions. Here I should like to call attention to an excellent study *Cistercian Settlements in Wales and Monmouthshire 1140-1540*, by Professor J. F. O'SULLIVAN (Fordham University Press, New York 1947). This study could be conveniently used when "a single authoritative work covering medieval ecclesiastical architecture in Wales in all its aspects (147)" sees the day.

The volume is excellently printed and illustrated and the maps of Caerwent and Caerleon, to cite examples, are a joy to behold. In short, it is a worthy centennial tribute to the Cambrian Archaeological Association.

JACOB HAMMER

Hunter College

The Hieroglyphics of Horapollo, translated by GEORGE BOAS. 134 pages, 10 plates. Pantheon Books, New York 1950 \$3.50

The importance of emblematic devices, as well as of the 'emblematic mode of thought' in a broader sense, has been increasingly recognized by students of sixteenth and seventeenth century civilization in recent years. It is to the scholars in these fields, rather than to the Hellenist or Egyptologist, that Professor BOAS addresses himself in this new translation of a late classical work which has only the most tenuous connection with true hieroglyphics but which served the Renaissance as a primary source of symbolic imagery. The treatise itself, a product of what CUMONT has so fittingly termed *L'Egypte des Astrologues*, was critically edited some ten years ago by the noted Italian scholar, FRANCESCO SBORDONE, but the present translation, in keeping with Professor BOAS' purpose, is based mainly on the less accurate text available to the men who rediscovered the *Hieroglyphica* five hundred years ago. The introductory essay, too, places far greater emphasis on the influence of Horapollo during this period, as reflected in the *Emblemata* of ALCIATI and similar works, than on the source and the original meaning of the text.

Concerning the latter problem, a good deal more is known today than one gathers from the author's remarks. The illuminating study by MAX WELLMANN (in *Philologus*, suppl. vol. 22,

1930) has shown that both the *Hieroglyphica* and the *Physiologus* represent the echo of a mystic-romantic trend in Hellenistic science, originated by a certain Bolos-Democritos and based on a hidden 'sympathy' between animals and the movements of celestial bodies. And the researches of CUMONT, LIEBESCHUETZ, and GUNDEL suggest that the 'hermetic' writings embodying this tradition had a significant influence on western mediaeval thought. It seems entirely possible, therefore, that the *Hieroglyphica* was known to the West long before the Renaissance. (Professor BOAS states that there are no manuscripts of the treatise earlier than the Quattrocento, yet SBORDONE lists several for which he claims a fourteenth century date.)

For those interested in Renaissance symbolism, however, the present edition should prove a valuable tool. They will find Professor BOAS' thoughtful essay on the subject both stimulating and well informed, and his bibliographical references will help them to penetrate further into this vast and fascinating field. A major convenience to the reader are the two indices, listing the symbols themselves and the subjects symbolized. Among the notes on the text, this reviewer has found only one in need of corrections: the letter by Ratramnus mentioned on page 68 does not debate the possible humanity of baboons; it deals, rather, with the mythical race of the *cynocephali*, i.e., monstrous beings with human bodies and canine heads.

H. W. JANSON

New York University

There'll Always Be a Drayneflete, by OSBERT LANCASTER. ix, 70 pages, illustrated by the author. Houghton Mifflin, Boston 1950 \$2.25.

This is a very saucy satire. The archer is the impish cartoonist who in *The Saracen's Head* forever deflated the Crusaders; this time his writhing victims are the tasteless provincial towns of England, their pedestrian local histories, and the mores of their landed gentry. The result is a dead-pan pamphlet purporting to trace the history of Drayneflete back to the earliest habitations on the north bank of the shallow but treacherous Drayne—"Or perhaps even earlier, for it is conceiva-

ble, though admittedly there is little to suggest it, that primitive man dwelt here before even there was a river at all, at a time when France and England were joined by a land-bridge. . . ." The author has fortified his reckless manufacture of history by twoscore drawings, ranging from the contents of the "long barrow opened on Drayneflete Down in 1888," "Roman Drayneflete," and the "gigantic head of an Emperor (Claudius? Caligula? Nero? Trojan? Vespasian?)," discovered in 1885 in the Vicarage Garden" to "Lord Littlehampton's Folly," an unusual architectural design, square pavilion in the classical style—in four classical styles, in fact—surmounted by a Gothic octagon surmounted by a three-storied Chinese pagoda surmounted by a Hindoo cupola, with under all an Egyptian crypt. For some reason this observer is reminded of McCormick Hall at Princeton University.

We would like to entertain you with transcriptions of long passages from this book, but the author, by copy-righting it, has surrounded such action by the menace of legal redress; we therefore refer you to the whole book and especially to the remains of the Roman villa (page 4), the circumstances of the baptism at Drayneflete of Filthfroth the Brisling (page 5), the restoration of the wall-painting of St. George (page 10), Prior Bloodwort, who among other oppressions appropriated the *jus primae noctis* ("exercised, naturally, by a lay deputy)," the fourteenth-century Drayneflete Carol (page 14), the genealogical researches of Miss Dracula Parsley-ffigett (page 16), the effigy of Sir Pompey Fidget, which "gains an added interest from the presence of his faithful hound, a feature which . . . makes the monument very popular with visitors, many of whom have signed their names in indelible pencil on the animal's hind quarters," and the poesy libellously attributed to successive generations of Tipples. Not all divisions of the population will concur in pronouncing this the funniest book of its age but if you like art, or people who like art, or the English, or to travel, or, conversely, actively dislike any of these things, Mr. LANCASTER's Drayneflete will convulse you.

At least, it did us.

J. J.

Monuments Funéraires Préislamiques de l'Afrique du Nord, by MAURICE REYGASSE. x, 134 pages, 175 illustrations, 8 plans, 1 sketch map. Published for the Gouvernement Général de l'Algérie, Direction de l'Intérieur et des Beaux-Arts, Service des Antiquités, by Arts et Métiers Graphiques, Paris 1950. 1200 francs.

The author, Director of the Musée d'Ethnographie et de Préhistoire du Bardo in Algiers and formerly an administrator of the Commune of Tebessa, Department of Constantine in Algeria, here sums up one part of a quarter century of diversified observation, research and exploration primarily in little known and desert regions of French North Africa. The title of his work may delude one into expecting simply an account of pre-islamic funerary monuments and burial forms. However, the reader who consults or finishes the book becomes informed on a number of thought-provoking ethnographic facts, historical and legendary episodes as well as on considerable legitimate archaeological generalization and speculation.

These asides, the passing thoughts or final judgments of an informed and observant official turned archaeologist, are all related in varying degree to the just consideration of the funerary monuments culled for publication here. The author describes burials and structures observed over most of North Africa, drawing freely on examples in an area extending from Spanish Morocco to Tripolitania and southward to Nigeria and the French Sudan but excluding anything eastward in the former Italian areas or Egypt. These 1,500,000 square miles, equal in extent to most of Western Europe, are still undergoing the process of discovery and exploration. Besides the geographic lacunae encountered, the author deals with a limbo of prehistoric and pre-islamic peoples. Their activities, beliefs and societies form part of a human history which extends back into the Stone Ages and forward nearly to the present time.

Virtually all this lay beyond the ken of observers and historians in the Mediterranean civilizations. Having such enormous and little known realms to consider, it is not surprising that some problems are raised but neither

solved nor reassessed, others oversimplified, and considerable relevant archaeological, physical anthropological and ethnographic data skimmed over in so summary a way as to leave the specialist unsatisfied, the general reader confused and all hands breathless. This volume contains only 52 pages of text which occasionally suggest hastily elaborated field-notes; but by the same token it has 67 pages of illustrations and is a mine of information and reference, its bibliography containing 277 items though lacking any by REYGASSE himself. Perhaps a concentrated glossary of Arab terms, a more thoroughly labelled sketch map, and more meticulous editing and proof-reading might have injected a greater order and avoided several exasperations.

None of these defects should, however, really discourage the curious reader. Explanations for most of the strange words are eventually given somewhere in the text. Most localities will be found if one is provided with selected different maps, vital equipment when considering the vast desert lands dominated by Arabs whose strict nomenclature but vague boundary concepts are the despair of Westerners. As regards any uniform rendering of Arab names, its importance is minimized by recalling T. E. LAWRENCE's brisk reply to frantic marginal queries by an editor of *The Seven Pillars of Wisdom*: "There are some 'scientific systems' of transliteration, helpful to people who know enough Arabic not to need helping, but a washout for the world. I spell my names anyhow, to show what rot the systems are."

In effect, this volume constitutes a short pioneering survey which begins to do for the interior regions what was done earlier by others for the coastal districts of North Africa. An enlightening historical introduction to the author and his work by ALBERT GRENIER also provides a useful prospectus for the somewhat diffuse accounts to come. The author's own opening remarks propose a general summary of funerary monuments which provides photographs and descriptions for any future comparisons and syntheses and emphasizes his own archaeological-ethnographic missions in the Touareg country of the Central Sahara.

Chapter I consists of brief general observations on the principal North

African burials and skeletal finds of the Stone Ages. The stress is less on the burial forms and furnishings than on the skeletal materials. These indicate a hiatus, in contrasting physical types, existing between those few examples found with Palaeolithic, Mesolithic and Neolithic remains in caves and open-air sites and those found with the later, generally Metal Age, relics dealt with in the balance of this work.

Chapter II is a distillation from the writings of early observers active during the last quarter of the nineteenth and the first decade of the twentieth centuries. It concerns the tumuli, dolmens, stone circles, rock-cut tombs and other more local specializations of stone structures discovered in the Mediterranean zone of North Africa. The works of GSELL and a few others continue indispensable for such a survey and, in the face of continued destruction, become our only sources for that fertile and densely populated region.

Chapter III contains most of the author's original contributions and deals at greater length, though not exhaustively, with a dozen different types of stone structures in the Central Sahara. Naturally, the emphasis is on some regions more than others: sites near Tit, Silet and Abelassa in the Hoggar and other lesser ones in the Tassili-en-Ajjer region to eastward prove to have been the major undertakings of REYGASSE's desert years. The chapter is subdivided to deal with characteristic monuments by region or type: tumuli of Ain Sefra; stone circles of the Hoggar; monoliths; horseshoe-shaped monuments, etc. The chapter and book reach a suitable climax in describing the results of excavations at tombs allegedly those of Tin Hinan, the legendary ancestress of the Touaregs, and of Takamat her handmaiden.

All these remains are briefly discussed and attempts made to segregate the older from the younger insofar as the very meagre burial furnishings or the disposition and physical state of component stone elements permit even the broadest dating assignments. Chronological arrangement is made doubly difficult by conservative traditions and primitive survivals. Many monument types appear synchronous, being similarly furnished; some types disappear from the north well before Islam but continue in the desert in islamized

forms; others, superficially alike, variously contain objects showing Carthaginian, Roman or later influences. Many structures are funerary but others are ritual or utilitarian, being curious little desert mosques or else markers of a holy spot or the scene of a violent death or merely corrals and threshing floors. The enigmatic formal stone tumuli of Kober Roumia and Medracen (see *ARCHAEOLOGY*, 2.88-90) have been entirely passed over, deemed worthy, perhaps, of a different more specialized analysis.

In the author's view there is no connection between the talayots, nuraghes, dolmens or other megaliths of the European sphere and any of their apparent counterparts in North Africa. All the latter are later and provide still

another indication of a hiatus. There are good photographs of the few objects such as jewelry, weapons, utensils or pottery and of the outstanding skeletal material, as well as photographs and black-line sketches of all the representative types of monuments. The general impression, drawn from the skeletal remains and styles of structures, burials and their contained artifacts, is that these monuments of the Central Sahara are, relatively, later rather than earlier in the intervals separating historical remains from those of the Stone Ages.

One leaves the account, after a short concluding chapter, with a yen to see the survey of the funerary monuments intensified and extended in these territories. REYGASSE's work, both the

present volume and any projected ones, can only be a skimming reconnaissance, the observations of a single questing individual during journeyings spread thin over thousands of square miles. His ideas may or may not be valid, on the basis of limited data briefly presented; but he is the first to urge obtaining further evidence. Actually, he has managed here to compress years of scattered observations into a short space. He has recorded the outlines and indicated a few possible directions for future work. The comprehensive orderly tabulation and analysis of funerary remains is still to be done.

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NEW BOOKS

Selected at the editorial offices from various sources, including bibliographical publications, publishers' announcements, and books received. Prices have not been confirmed.

ALDRED, CYRIL. *Middle Kingdom Art in Ancient Egypt, 2300-1590 B.C.* vii, 56 pages, 83 figures, map. Alec Tiranti, London 1950 6s.

DE BLASI, JOLANDA. *The four patriarchal basilicas of the Holy Year.* 192 pages, ill., diags. W. S. Heineman, New York 1950 \$5.50

BLEGEN, CARL W., JOHN L. CASKEY, MARION RAWSON, and JEROME SPERLING. *Troy, Volume 1. General Introduction; the first and second settlements. Part 1, Text:* xxiv, 396 pages, 1 figure. *Part 2, Plates:* xxvii pages, 472 illustrations. Published for the University of Cincinnati by Princeton University Press, Princeton 1950 \$36.00

BONNER, CAMPBELL. *Studies in Magical Amulets, chiefly Graeco-Egyptian.* xxii, 344 pages, 25 plates. University of Michigan Press, Ann Arbor 1950 (Humanistic Series, vol. 49) \$12.50

BRYAN, KIRK. *Flint Quarries—the Sources of Tools and, at the same time, the Factories of the American Indian, with a consideration of the theory of the "blank" and some of the techniques of flint utilization.* vii, 40 pages, 21 figs. Peabody Museum, Cambridge 1950 (Papers of the Peabody Museum of American Archaeology and Ethnology, Harvard University, Volume 17, No. 3)

BULLEN, RIPLEY P. *Excavations in Northeastern Massachusetts.* xii, 152 pages, 19 figures, 20 plates. Peabody Foundation, Andover 1949 (Papers of the Robert S. Peabody Foundation for Archaeology, Vol. 1, No. 3)

BURROWS, MILLAR, JOHN C. TREVER, and WILLIAM H. BROWNLEE. *The Dead Sea Scrolls of St. Mark's Monastery. Volume I, The Isaiah Manuscript and the Habakkuk Commentary.* xxiii, 61 pages, 61 plates. American Schools of Oriental Research, New Haven 1950 \$5.00

BUTCHER, DEVEREUX. *Exploring Our Prehistoric Indian Ruins. The National Archeological Monuments of the United States (Administered by the National Park Service).* 64 pages, abundantly illustrated. National Parks Association, Washington (1950) \$1.00

CASSON, LIONEL, and ERNEST L. HETTICH. *Excavations at Nessana. Volume 2, Literary Papyri.* xiv, 175 pages, 8 plates. Princeton University Press, Princeton 1950 (Colt Archaeological Institute) \$7.50

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